

**UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

EXPRESS MOBILE, INC.,

*Plaintiff,*

v.

FACEBOOK INC.,

*Defendant.*

Case No. 6:20-cv-803

**JURY TRIAL DEMANDED**

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Express Mobile, Inc. (“Express Mobile” or “Plaintiff”), by its attorneys, demands a trial by jury on all issues so triable and for its Complaint against Facebook Inc. (“Facebook” or “Defendant”) alleges the following:

**NATURE OF THE ACTION**

1. This action arises under 35 U.S.C. § 271 for Facebook’s infringement of Express Mobile’s United States Patent Nos. 6,546,397 (“the ’397 patent”), 7,594,168 (“the ’168 patent”), 9,928,044 (“the ’044 patent”), 9,471,287 (“the ’287 patent”) and 9,063,755 (“the ’755 patent”).

**THE PARTIES**

2. Plaintiff Express Mobile, Inc. is an inventor-owned corporation organized under the laws of the State of Delaware with a place of business at 38 Washington Street, Novato, California 94947.

3. Upon information and belief, Facebook Inc. is a corporation organized and existing under the laws of the State of Delaware, with places of business at 300 W 6th Street, Austin,

Texas, 78701 and 607 W 3rd Street, Austin, Texas 78701. Facebook may be served through its registered agent for service at CSC - Lawyers Incorporating Service California, 2710 Gateway Oaks Drive Ste 150N, Sacramento, California 95833.

4. Facebook provides technologies that give people the power to connect with friends and family, find communities and grow businesses.

### **JURISDICTION AND VENUE**

5. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

6. Jurisdiction and venue for this action are proper in the Western District of Texas.

7. This Court has personal jurisdiction over Facebook because Facebook has purposefully availed itself of the rights and benefits of the laws of this State and this Judicial District. Facebook resides in the Western District of Texas by maintaining regular and established places of business at 300 W 6th Street, Austin, Texas, 78701 and 607 W 3rd Street, Austin, Texas 78701.

8. This Court also has personal jurisdiction over Facebook because Facebook has done and is doing substantial business in this Judicial District, both generally and, upon information and belief, with respect to the allegations in this Complaint, including Facebook's one or more acts of infringement in this Judicial District.

9. Venue is proper in this Judicial District under 28 U.S.C. §§ 1391(b) and (c) and § 1400(b). Facebook has committed acts of infringement through, for example, performing a method to allow users to produce Internet websites in the Western District of Texas and has regular and established places of business in this District. Facebook's offices in Austin are physical places in the District, they are established locations where Facebook's business has been carried out for several years, and Facebook publicly advertises its presence in the District.

**THE PATENTS-IN-SUIT**

10. Express Mobile is the lawful owner of all rights, title, and interest in the '397 patent titled "Browser Based Web Site Generation Tool and Run Time Engine," including the right to sue and to recover for infringement thereof. The '397 patent was duly and legally issued on April 8, 2003, naming Steven H. Rempell as the inventor. A true and correct copy of the '397 patent is attached as Exhibit A.

11. The inventions of the '397 patent solve technical problems related to website creation and generation. For example, the inventions enable the creation of websites through browser-based visual editing tools such as selectable settings panels which describe website elements, with one or more settings corresponding to commands. These features are exclusively implemented utilizing computer technology including a virtual machine.

12. The claims of the '397 patent do not merely recite the performance of some pre-Internet business practice on the Internet. Instead, the claims of the '397 patent recite inventive concepts that are rooted in computerized website creation technology, and overcome problems specifically arising in the realm of computerized website creation technologies.

13. The claims of the '397 patent recite inventions that are not merely the routine or conventional use of website creation systems and methods. Instead, the inventions teach a browser-based website creation system and method in which the user-selected settings representing website elements are stored in a database, and in which said stored information is retrieved to generate said website.

14. The technology claimed in the '397 patent does not preempt all ways of using website or web page authoring tools nor any other well-known prior art technology.

15. Accordingly, each claim of the '397 patent recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.

16. Plaintiff is the lawful owner of all rights, title, and interest in United States Patent No. 7,594,168 titled "Browser Based Web Site Generation Tool and Run Time Engine," including the right to sue and to recover for infringement thereof. The '168 patent was duly and legally issued on September 22, 2009, naming Steven H. Rempell as the inventor. A true and correct copy of the '168 patent is attached as Exhibit B.

17. The inventions of the '168 patent solve technical problems related to website creation and generation. For example, the inventions enable the creation of websites through browser-based build tools and a user interface. The inventions greatly improve the productivity of the designer utilizing an innovative implementation for styles. These features are implemented utilizing computer technology.

18. The claims of the '168 patent do not merely recite the performance of some pre-Internet business practice on the Internet. Instead, the claims of the '168 patent recite inventive concepts that are rooted in computerized website creation technology and overcome problems specifically arising in the realm of computerized website creation technologies.

19. The claims of the '168 patent recite inventions that are not merely the routine or conventional use of website creation systems and methods. Instead, the inventions teach a browser-based website creation system including a server comprising a build engine configured to create and apply styles to, for example, a website with web pages comprised of objects.

20. The technology claimed in the '168 patent does not preempt all ways of using website or webpage authoring tools nor any other well-known or prior art technology.

21. Accordingly, each claim of the '168 patent recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.

22. In *Express Mobile v. KTree Computer Solutions*, a case filed in the Eastern District of Texas, the defendant, KTree Computer Solutions, brought a Motion for Judgment on the Pleadings asserting that the '397 patent and the '168 patent are invalid as claiming abstract subject matter under 35 U.S.C. § 101. (C.A. 2:17-00128; Dkt. 9, 17, 22-27). The briefing associated with the motion is incorporated by reference into this Complaint.

23. After considering the respective pleadings, Magistrate Judge Payne recommended denial of KTree's motion, without prejudice, holding that "the claims appear to address a problem particular to the internet: dynamically generating websites and displaying web pages based on stored user-selected settings" and further stating "the asserted claims do not bear all of the hallmarks of claims that have been invalidated on the pleadings by other courts in the past. For example, the claims are not merely do-it-on-a-computer claims." (Dkt. 29, attached as Exhibit C.) No objection was filed to the Magistrate Judge's report and recommendation and the decision therefore became final.

24. In *Express Mobile v. Pantheon Systems, Inc.*, a case filed in the Northern District of California, the defendant, Pantheon Systems, Inc., brought a Motion to Dismiss Plaintiff's First Amended Complaint asserting that the '397 patent and the '168 patent were directed to the abstract idea of creating and displaying webpages based upon information from a user with no further inventive concept and purportedly ineligible for patenting under 35 U.S.C. § 101. (Case No. 3:18-CV-04688-RS; Dkt. 26, 32 and 34). The briefing associated with the motion is incorporated by reference into this Complaint.

25. In *Express Mobile v. Code and Theory LLC*, a case filed in the Northern District of California, the defendant, Code and Theory LLC, brought a Motion to Dismiss Plaintiff's Complaint asserting that the '397 patent and the '168 patent are not subject matter eligible under 35 U.S.C. § 101 as a matter of law. (Case No. 3:18-CV-04679-RS; Dkt. 35, 40 and 41). The briefing associated with the motion is incorporated by reference into this Complaint.

26. After a hearing and a consideration of the respective pleadings, Hon. Richard Seeborg denied both motions holding that:

- “The patents here are directed at a purportedly revolutionary technological solution to a technological problem—how to create webpages for the internet in a manner that permits ‘what you see is what you get’ editing, and a number of other alleged improvements over the then-existing methodologies.” *Id.* at 5.
- The claims of the '397 and '168 patents are “directed to a specific improvement to the way computers operate,” and “it simply cannot be said on the present record that the claims are drawn so broadly as to be divorced from the potentially patent-eligible purported technological improvements described in the specification.” *Id.* at 5-6. (Case No. 3:18-CV-04679-RS; Dkt.45; Case No. 3:18-CV-04688-RS Dkt.40; attached as Exhibit D.)

27. In Case Nos. 1:18-CV-01173-RGA and 1:18-CV-01175-RGA, infringement actions filed by Plaintiff in the District of Delaware, the respective defendants in those actions, Dreamhost LLC and Hostway Services, Inc., brought Motions to Dismiss claims of the '397 and '168 patents on the basis of invalidity under 35 U.S.C. § 101. (Case No. 1:18-CV-01173-RGA D.I. 14, D.I. 18-21 and 24 Case No. 1:18-CV-01175-RGA D.I. 17-19 and 23). The briefing associated with the motion is incorporated by reference into this Complaint..

28. After consideration of the respective pleadings, Judge Andrews denied both motions in a joint order, pointing to factual allegations of inventiveness identified by the Plaintiff, and an expert declaration explaining inventiveness of the claims, noting that such factual issues preclude a finding of invalidity on a motion to dismiss. (Case No. 1:18-CV-01173-RGA D.I. 43; Case No. 1:18-CV-01175-RGA D.I. 42; attached as Exhibit E.)

29. Plaintiff is the lawful owner of all rights, title, and interest in United States Patent No. 9,928,044 titled “Systems and Methods for Programming Mobile Devices,” including the right to sue and to recover for infringement thereof. The ’044 patent was duly and legally issued on March 27, 2018, naming Steven H. Rempell, David Chrobak and Ken Brown as the inventors. A true and correct copy of the ’044 patent is attached as Exhibit F.

30. The inventions of the ’044 patent solve technical problems associated with methods and systems for displaying content on displays of devices by providing more efficient ways of generating, storing and retrieving code for displaying content, for example dynamic content, uniformly across different kinds of devices. For example, the inventions of the ’044 patent allow a data-efficient and flexible association between a symbolic name with a User Interface (“UI”) object (e.g., a UI object for a widget) corresponding to a web component of a web service, that is manually or automatically selected. The symbolic name has a data format type corresponding to a subclass of UI objects that support the data format type of the symbolic name and is only available to UI objects that support the data format of the symbolic name. Information representative of the defined UI object can be stored in a database and subsequently retrieved from the database to build an application consisting of at least a portion of the database using a player, which uses the information to generate one or more web pages for display across different kinds of devices (e.g., PC, mobile or tablet; or different browsers, operating systems and applications, including for example both native and browser-based applications.)

31. The claims of the ’044 patent do not merely recite the performance of some pre-Internet business practice on the Internet. Instead, the claims of the ’044 patent recite inventive concepts that are rooted in the computerized, data-efficient definition, selection, storage and generation of user defined object attributes (e.g., a UI object for a widget) on displays for different types of devices, such as PC, mobile or tablet or different browsers, and applications.

Such features are specifically grounded in, and overcome problems with data efficiency and flexibility specifically arising in, the realm of computerized content generation and display technologies, and are not well-understood, routine and conventional elements.

32. For example, the claimed inventions of the '044 patent recite innovative, technical improvements that select and associate symbolic names with defined UI objects (e.g., UI objects for a widget) corresponding to web components of web services based on, for example, data format type, storing information representative of such settings in a database, and building applications, which together with players, generate uniform, data-efficient content display across different types of devices.

33. The technology claimed in the '044 patent does not preempt all ways for the computerized generation of code for a display of a device nor any other well-known or prior art technology. For example, the specific, innovative technical improvements do not preempt well-known methods of generating code for a display of a device by programming in HTML or JavaScript code.

34. Accordingly, each claim of the '044 patent thus recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.

35. Plaintiff is the lawful owner of all rights, title, and interest in United States Patent No. 9,471,287 titled "Systems and Methods for Integrating Widgets on Mobile Devices," including the right to sue and to recover for infringement thereof. The '287 patent was duly and legally issued on October 18, 2016, naming Steven H. Rempell, David Chrobak and Ken Brown as the inventors. A true and correct copy of the '287 patent is attached as Exhibit G.

36. The inventions of the '287 patent solve technical problems associated with methods and systems for displaying content on displays of devices by providing more efficient



ways of generating code for uniformly displaying content, for example dynamic content, across different kinds of devices. For example, the inventions of the '287 patent allow a data-efficient and flexible association between a symbolic name and a UI object (e.g., a UI object for a widget) corresponding to a web component of a web service, that is defined for presentation on a display of a device. The defined UI object can be selected by a user of an authoring tool or automatically selected by a system based on a web component selected by the user. Further, the symbolic name has a data format type corresponding to a subclass of UI objects that support the data format type of the symbolic name. A device-independent application including the symbolic name is then produced and provided to the device together with a device-platform-dependent player. Such operations provide a user-friendly platform allowing the UI object to be efficiently defined and uniformly displayed across different kinds of devices (e.g., PC, mobile or tablet; or different browsers, operating systems, and applications, including for example both native and browser-based applications).

37. The claims of the '287 patent do not recite merely the performance of a known business practice on the Internet. Instead, the claims of the '287 patent recite inventive concepts grounded in the computerized, data-efficient definition and generation of object attributes (e.g., a UI object for a widget) on displays for different types of devices, such as PC, tablet, or mobile devices, or different browsers and applications. Such features are specifically grounded in, and overcome problems with data efficiency and flexibility specifically arising in, the realm of computerized content generation and display technologies, and are not well-understood, routine, and conventional elements.

38. For example, the claimed inventions of the '287 patent recite innovative, technical improvements that associate symbolic names with UI objects (e.g., UI objects for a widget) corresponding to web components of web services that are manually or automatically

selected, and defined based on, for example, data format type, and produce device-independent applications including those symbolic names, together with device-dependent players, to provide uniform, data-efficient server-based content display across different types of devices.

39. The technology claimed in the '287 patent does not preempt all ways for the computerized generation of code for a display of a device nor any other well-known or prior art technology. For example, the specific, innovative technical improvements do not preempt well-known methods of generating code for a display of a device by programming in HTML or JavaScript code.

40. Each claim of the '287 patent thus recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.

41. Accordingly, each claim of the '287 patent recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.

42. Plaintiff is the lawful owner of all rights, title, and interest in United States Patent No. 9,063,755 titled "Systems and Methods for Presenting Information on Mobile Devices," including the right to sue and to recover for infringement thereof. The '755 patent was duly and legally issued on June 23, 2015, naming Steven H. Rempell, David Chrobak and Ken Brown as the inventors. A true and correct copy of the '755 patent is attached as Exhibit H.

43. The inventions of the '755 patent utilize inventive concepts to solve technical problems associated with methods and systems for displaying content on displays of devices, providing more efficient ways of generating code for uniformly displaying content, for example dynamic content, across different kinds of devices. For example, the inventions of the '755 patent allow a data-efficient and flexible association between a symbolic name and a UI object (e.g., a UI object for a widget), corresponding to a web component of a web service, that is

defined for presentation on a display of a device. A device-independent application including the symbolic name is produced and provided to the device, together with a device-platform-dependent player.

44. The claimed inventions of the '755 patent allow the UI object to be efficiently displayed across different kinds of devices (e.g., PC, mobile or tablet; or different browsers, operating systems, and applications, including for example both native and browser-based applications), as opposed to, for example, programming directly in HTML or JavaScript code. In turn, a user can enter an input value to the UI object, and obtain an output value based on a web service associated with the UI object, the input value and output value also being communicated through symbolic names to provide an additional level of efficiency.

45. The claims of the '755 patent do not recite merely the performance of a known business practice on the Internet. Instead, the claims of the '755 patent recite inventive concepts concerning the computerized, data-efficient generation of server-based object attributes (e.g., a UI object for a widget) on displays for different types of devices, such as PC, tablet, or mobile devices, or different browsers and applications. For example, the claims of the '755 utilize symbolic name associations and provide device-independent applications including those symbolic names, together with device-platform-dependent players, to devices. Further, input values and output values for the defined content are also communicated as symbolic names. Such features are specifically grounded in, and overcome problems with data efficiency and flexibility specifically arising in, the realm of computerized content generation and display technologies, and are not well-understood, routine, and conventional elements.

46. For example, the claimed inventions of the '755 patent recite innovative, technical improvements that associate symbolic names with defined UI objects (e.g., UI objects for a widget) corresponding to web components of web services, and produce device-

independent applications including those symbolic names, together with device-platform-dependent players, to provide uniform, data-efficient content display across different types of devices.

47. The technology claimed in the '755 patent does not preempt all ways for the computerized generation of code for a display of a device, nor any other well-known or prior art technology. For example, the specific, innovative technical improvements claimed in the '755 patent do not preempt well-known methods of generating code for a display of a device by programming in HTML or JavaScript code.

48. Each claim of the '755 patent thus recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept. Accordingly, each claim of the '755 patent recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.

### **BACKGROUND**

49. Plaintiff Express Mobile is a leader in the business of developing mobile app and web site design and creation platforms, and has intellectual property including U.S. patents relating to certain tools useful in the field. Express Mobile is managed by individuals with decades of technology and business experience. The Chairman of the Board and CTO of Express Mobile, Steve Rempell, is the inventor of Express Mobile's patent portfolio. Mr. Rempell has over 50 years of experience in technology companies, with much of that work focused on web-based technologies and applications.

50. Defendant Facebook is a well-known company that provides technologies that give people the power to connect with friends and family, find communities and grow businesses. Facebook has grown rapidly and now generates billions of dollars of revenue per year.

**COUNT I - INFRINGEMENT OF U.S. PATENT NO. 6,546,397**

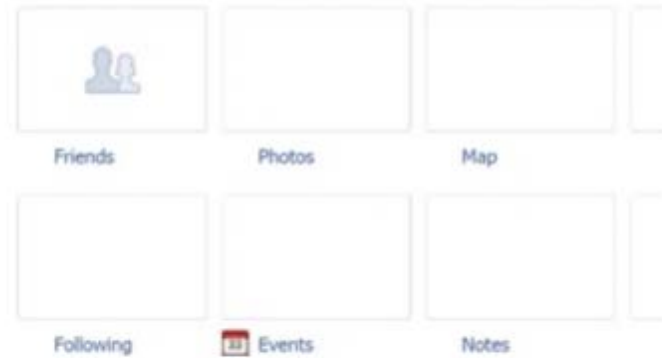
51. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 50 above.

52. Facebook has performed a method to allow users to produce Internet websites which infringed, either literally or under the doctrine of equivalents, one or more claims of the '397 patent in violation of 35 U.S.C. § 271(a).

53. Facebook has directly infringed at least claim 1 of the '397 patent through its platform, including Facebook.com and related software and servers (“the Accused Instrumentality”) that provides browser-based website authoring tools in which the user-selected settings representing website elements are stored in a database and in which said stored information is retrieved to generate said website.

54. Facebook has infringed at least claim 1 of the '397 patent by having performed a method to allow users to produce Internet websites on and for computers having a browser and a virtual machine capable of generating displays.

55. The Accused Instrumentality enabled a user to produce a website on the Facebook site through a browser on the user’s computer. Through the registration process, the user triggered creation of a timeline page as well as a set of related pages such as “Friends,” “Photos,” “Map,” “Following,” “Events” and “Notes.” The Accused Instrumentality presented an interface through which each of these pages (as well as others) could be edited.



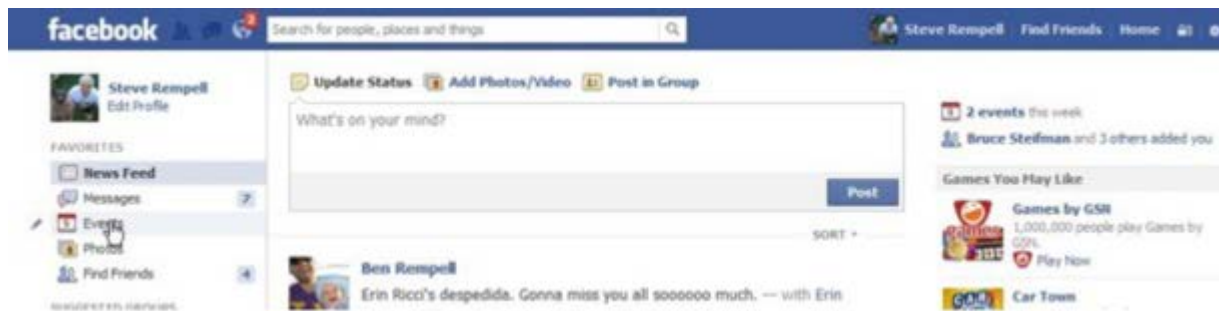
56. The Accused Instrumentality allowed the user to create and edit other types of pages that were then added to the user's Facebook site:

[About](#) [Create an Ad](#) [Create a Page](#) [Developers](#)

57. Facebook's list of compatible browsers includes the latest versions of the following: Mozilla Firefox, Apple Safari, Google Chrome, Internet Explorer, Microsoft Edge and Opera. (See: <http://www.facebook.com/help/210310575676558>).

58. All of these well-known modern browsers rely on engines that fit the definition of a virtual machine, which interpret and execute JavaScript and HTML to render web pages on a computer. These include, but are not limited to, Javascript engines such as Chrome V8 (Chrome), SpiderMonkey (Firefox), JavaScriptCore (Safari), Chakra (Edge). It also includes browser engines such as Webkit (Safari), Gecko (Safari), Blink (Chrome).

59. To edit the Events page and add a new event, the user first selected "Events" to navigate to the user's Events page.



60. From the Events page, the user selected “Create Event” to navigate to a window of selectable settings for the new event.



61. In the “Create New Event” window, the user provided an event name and details, selected or added a location, selected from/to dates and times, and could select a privacy level (e.g., “Friends” or “Invite Only” and whether guests can invite friends).

62. The Accused Instrumentality-compatible browsers all rely on browser engines (which are process virtual machines) to generate and display the user-authored web pages on a particular computer, the settings (e.g., new event settings) that a user selected through the Facebook interface necessarily corresponded to virtual machine commands. For example, the HTML code tag below, which includes data for user-selected options for creating a new event (highlighted in red), was used by the browser's engine to generate and display the Facebook user's Events page for a user viewing the web page on a computer, the author's selections being reflected in the displayed page.

```
<code class="hidden_elem" id="u_0_p"><!-- <div class="mbm fbEventInfo uiBoxWhite topborder"><ul class="uiList_4kg_4ks"><li><ul
class="uiList fbEventTimeWeatherInfo_509- 4ki 6-h_704_4ks"><li class="fbEventTimeWeatherInfoSection"><div class="clearfix pvm prm"><div
class="fbInfoIcon lfloat"></div><div class="lfloat" itemprop="startDate" content="2013-04-26T11:00:00-07:00"><span class="fsl"><a
href="/events/calendar/2013/April/26" ajaxify="/ajax/calendar/day_box.php?day=1366354800&invites_link=0&action_source=2"
rel="dialog" role="button">Friday, April 26, 2013</a></span></div></li><li class="fbEventTimeWeatherInfoSection"><div class="clearfix
pvm prm"><div class="fbInfoIcon lfloat"></div><span class="lfloat fsl feg"><span class="fcb">11:00am</span> until <span
class="fcb">12:00pm</span></span></div></li></ul></li><li><table class="uiGrid mvm" cellspacing="0" cellpadding="0"><tbody><tr><td
class="vTop"><div class="fbInfoIcon"></div></td><td class="vTop fbEventLocationInfo"><span class="fsl"><span itemprop="location"><div
class="uiCollapsedList uiCollapsedListHidden" id="u_0_o"><span class="visible"><span>1-719-387-0599, participant code
636939</span></div></span></div></td></tr></tbody></table></li><li><table class="uiGrid mvm" cellspacing="0"
cellpadding="0"><tbody><tr><td class="vTop"><div class="fbInfoIcon"></div></td><td class="vTop"><span
itemprop="description"><span class="fsl">patent claims discussion</span></span></td></tr></tbody></table></li></ul></div></div></div>--
</code>
```

63. The display in the “Create New Event” window for the “Bob and Mike” event is updated immediately to show selections for each option as each is entered.



### Create New Event

**Name** Bob and Mike

**Details** patent claims discussion

**Where** 1-719-387-0599, participant code 636939

**From** 4/26/2013 11:00 am PDT

**To** 4/26/2013 12:00 pm

**Privacy** ☒ Invite Only

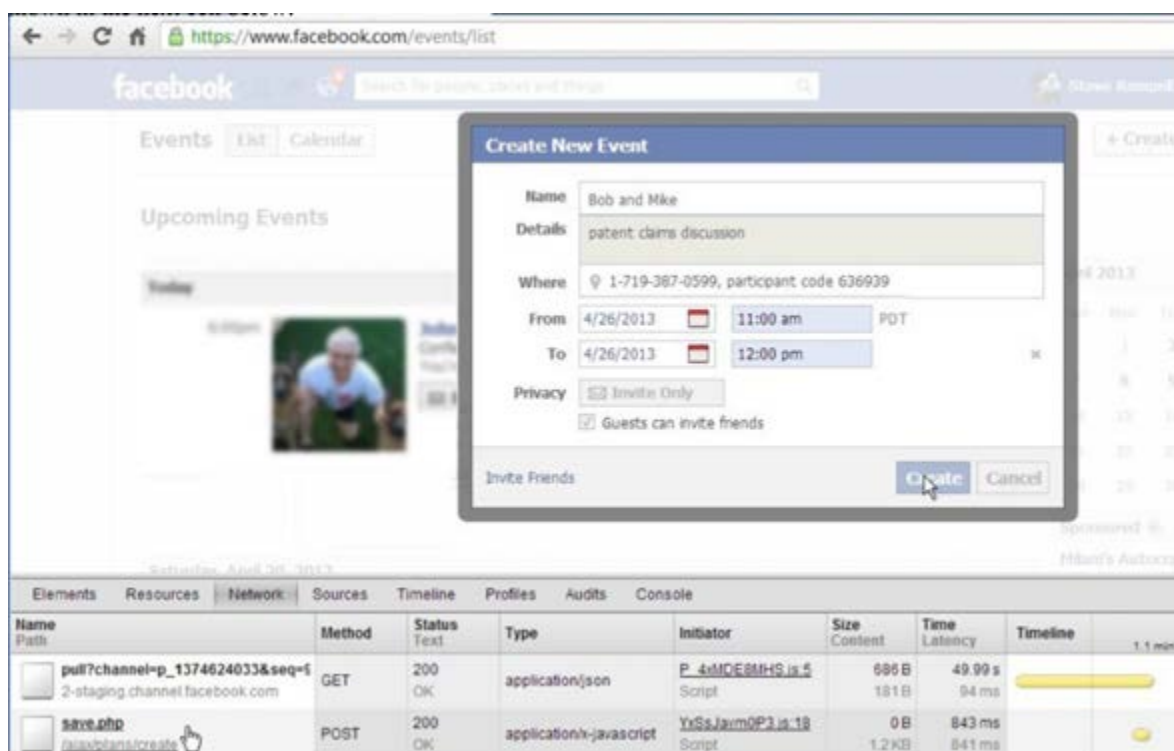
☒ Guests can invite friends

Invite Friends **Create** Cancel

64. After the “Create” button is clicked from the “Create New Event” window, the full view of the events page was immediately updated.

The screenshot shows the Facebook interface with the 'Events' tab selected. Under 'Upcoming Events', the event 'Bob and Mike' is listed for Friday, April 26, 2013, at 11:00am. The event details include the location '1-719-387-0599, participant code 636939' and a photo of a man. To the right, there is a calendar for April 2013 and several sponsored ads, including one for 'Shocking Language Video' and another for 'Possibilities & Potential'.

65. Clicking the “Create” button when creating an Event initiated a “POST” command through JavaScript code to store the data on a Facebook server. The Google Chrome network diagnostic tool captured the network traffic between the Facebook server’s form processor (save.php) and the Facebook JavaScript code on the User’s device (“YxSsJaym0P3.js:18”) when a user clicked on “Create” to create this new event. The POST command of 1.2 kilobytes represented the data that was sent to the Facebook Server’s Form Processor (save.php) and saved in the Events record in the Facebook database.



66. Facebook published a Graph API for its database that could create, edit or retrieve data for all defined pages, including event(s) from the Events page. The Facebook Graph API could retrieve the stored data for the “Bob and Mike” Event. The data could be returned in JavaScript Object Notation (“JSON”) format. User-selected options could be seen in the data. For example, the data corresponding to the event description “patent claims discussion” is shown below.

**Edit Event Info**

Name: Bob and Mike

Details: patent claims discussion

Where: 1-719-387-0599, participant code 636939

From: 4/26/2013 11:00 am PDT

To: 4/26/2013 12:00 pm

Hosts: Steve Rempell

Privacy: Friends of Guests

Save Cancel

67. The command

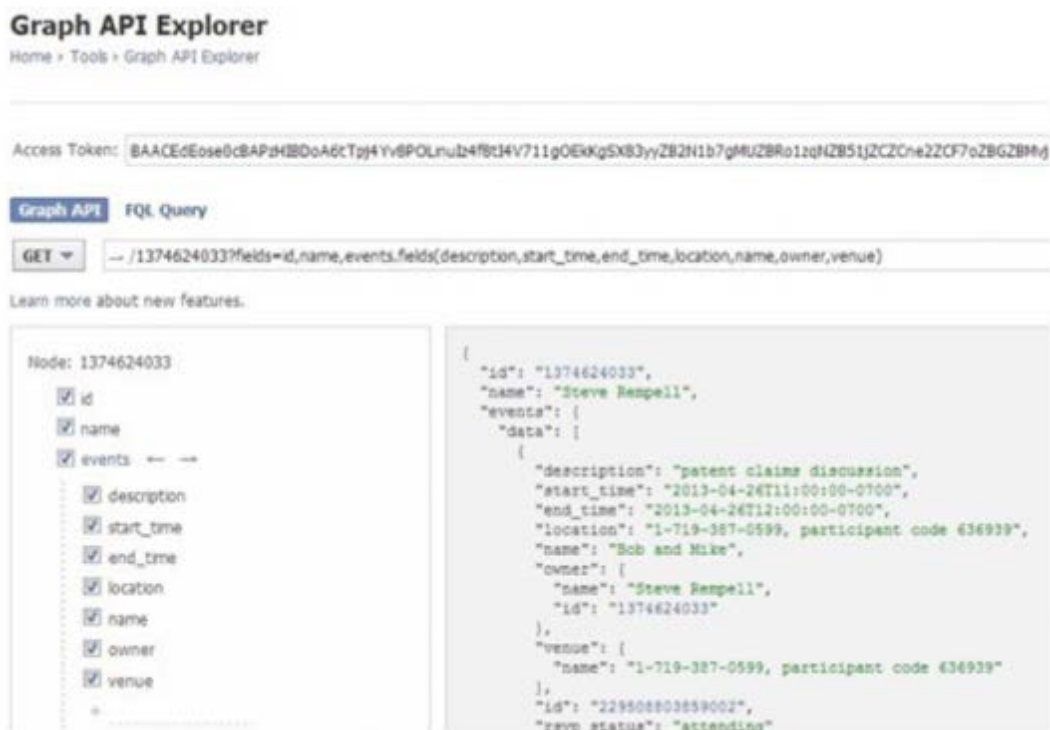
GET/1374624033?fields=id,name,events.fields(description,start\_time,end\_time, location, name, owner, venue) retrieved all the Event data for Steve Rempell's record "id"="1374624033" shown below. Included in that record is the data related to event "id"="154266558074170" for the 4/26/13 event at 11:00 am.

```

{
  "id": "1374624033",
  "name": "Steve Rempell",
  "events": {
    "data": [
      {
        "description": "patent claims discussion",
        "start_time": "2013-04-26T11:00:00-0700",
        "end_time": "2013-04-26T12:00:00-0700",
        "location": "1-719-387-0599, participant code 636939",
        "name": "Bob and Mike",
        "owner": {
          "name": "Steve Rempell",
          "id": "1374624033"
        },
        "venue": {
          "name": "1-719-387-0599, participant code 636939"
        },
        "id": "154266558074170",
        "rsvp_status": "attending"
      }, ], } }

```

68. The screen shot below shows the actual Facebook Graph API “Event” data retrieval operation.



69. The Accused Instrumentality uses Facebook’s “BigPipe” technology to have generated the Events Web Page. Facebook explains that: “After receiving the HTTP request and performing some sanity check on it, web server immediately sends back an unclosed HTML document that includes an HTML tag and the first part of the tag. The tag includes BigPipe’s JavaScript library to interpret pagelet responses to be received later. In the tag, there is a template that specifies the logical structure of page and the placeholders for pagelets.” In other words, the initial “unclosed HTML document” includes both placeholders for the page content (which Facebook explains is decomposed into the “pagelets” referenced above) and “BigPipe’s JavaScript library to interpret pagelet responses to be received later.” This process could be seen in action when opening the page for the “Bob and Mike” Event previously referenced.

70. Specifically, the sources for the Bob and Mike Event page shown below included the following three pagelets (outlined in red) being used as the “sources” for the three page

elements (outlined in blue): pagelet\_event\_header, pagelet\_event\_guests and pagelet\_event\_details.



71. Facebook further explains that, once the pagelet data has been received “via ‘onPageletArrive’ calls,” “BigPipe displays the pagelets by setting its corresponding placeholder div’s innerHTML to the pagelet’s HTML markup.” The resulting HTML, i.e. the segments associated with each of the pagelets, is shown below, with data corresponding to the user-selected options highlighted in red below.

**pagelet\_event\_header:**

```
<code class="hidden_elem" id="u_0_m"><!-- ... <div><a class="fbEventHeadlineLink" href="/events/154266558074170/"><div class="mbs fbEventHeadline fxl fwb fcb"
itemprop="summary">Bob and Mike</div></a><div class="fsm fwn fcg"><span data-hover="tooltip" aria-label="Only people who are invited can see and join this event"
class="fbEventPrivacy"><i class="mrs fbEventPrivacyShortIcon img sp_cjw52 sx_fb4baa"></i> Invite Only</span> · <span class="fsm fwn fcg">By <a
href="https://www.facebook.com/steve.rempell" data-hovercard="/ajax/hovercard/user.php?id=1374624033">Steve Rempell</a></span></div></div>--></code>
```

**pagelet\_event\_guests:**

```
<code class="hidden_elem" id="u_0_n"><!-- <div class="fbEventGuests"><div id="pagelet_event_guests_going" data-referrer="pagelet_event_guests_going"><div class="pr uiBoxWhite
topborder"><div class="mrs"><strong><a href="/browse/event_members/?id=154266558074170&amp;edge=temporal_group%3Amember_of_temporal_group&amp;showstatus=0"
ajaxify="/ajax/browse/dialog/event_members/?id=154266558074170&amp;edge=temporal_group%3Amember_of_temporal_group&amp;showstatus=0" rel="dialog" role="button">Going
(1)</a></strong></div></div><ul class="uiList mtm mbl phs_4kg_6-h_704_6-i"><li class="fbEventGuestItem"><div class="clearfix"><a class="s0_s8 lfloat"
href="http://www.facebook.com/steve.rempell" tabindex="1" aria-hidden="true" data-hovercard="/ajax/hovercard/user.php?id=1374624033"></a><div class="8m_42ef"><div class="6a"><div class="6a_6b"
style="height:32px"></div></div><div class="6a_6b"><div class="fsm fwn fcg"><a href="http://www.facebook.com/steve.rempell">Steve Rempell</a>
(Hast)</div></div></div></li></ul></div><div id="pagelet_event_guests_maybe" data-referrer="pagelet_event_guests_maybe"></div><div id="pagelet_event_guests_invited" data-
referrer="pagelet_event_guests_invited"></div></div>--></code>
```

**pagelet\_event\_info:**

```
<code class="hidden_elem" id="u_0_p"><!-- <div class="mhm fbEventInfo uiBoxWhite topborder"><ul class="uiList_4kg_4ks"><li><ul class="uiList fbEventTimeWeatherInfo_509-
_6-h_704_4ks"><li class="fbEventTimeWeatherInfoSection"><div class="clearfix pvm prm"><div class="fbInfolcon lfloat"></div><div class="lfloat" itemprop="startDate" content="2013-04-26T11:00:00-07:00"><span
class="fst"><a href="/events/calendar/2013/April/26" ajaxify="/ajax/calendar/day_box.php?day=1366354800&amp;invites_link=0&amp;action_source=2" rel="dialog" role="button">Friday,
April 26, 2013</a></span></div></li></ul></li><li class="fbEventTimeWeatherInfoSection"><div class="clearfix pvm prm"><div class="fbInfolcon lfloat"></div><span class="lfloat fst fcg"><span class="fcb">11:00am</span><span>until
<span class="fcb">12:00pm</span></span></div></li></ul></li><li><table class="uiGrid mvm" cellspacing="0" cellpadding="0"><tbody><tr><td class="vTop"><div
class="fbInfolcon"></div><td class="vTop
fbEventLocationInfo"><span class="fst"><span itemprop="location"><div class="uiCollapsedList uiCollapsedListHidden" id="u_0_o"><span class="visible"><span>1-719-387-0599,
participant code 636939</span></div></span></td><tr><td><table class="uiGrid mvm" cellspacing="0" cellpadding="0"><tbody><tr><td class="vTop"><div class="fbInfolcon"></div></td><td class="vTop"><span itemprop="description"><span class="fst"><span>patient claims discussion</span></span></td></tr></tbody></table></li></ul></div></div>--></code>
```

72. Facebook was made aware of the '397 patent and its infringement thereof at least as early as January 25, 2019 when Express Mobile provided notice of Facebook's infringement of the '397 patent to Colin Stretch, Vice-President and General Counsel of Facebook. Since at least the time Facebook received notice, Facebook has induced others to infringe at least one claim of the '397 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, having actively aided and abetted others to infringe, including but not limited to Facebook's clients, customers, and end users, whose use of the Accused Instrumentality constituted direct infringement of at least one claim of the '397 patent. In particular, Facebook's actions that aided and abetted others such as customers and end users to infringe include having advertised and distributed the Accused Instrumentality and having provided instruction materials, training, and services regarding the Accused Instrumentality. See e.g., facebook.com, facebook.com/help, facebook.com/business/help, <https://www.facebook.com/notes/facebook-engineering/>, and related domains and subdomains. Facebook has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Facebook has had actual knowledge of the '397



patent and knowledge that its acts were inducing infringement of the '397 patent since at least the date Facebook received notice that such activities infringed the '397 patent.

73. Facebook is liable as a contributory infringer of the '397 patent under 35 U.S.C. § 271(c) by having offered to sell, sold and imported into the United States website or web page authoring tools to be especially made or adapted for use in an infringement of the '397 patent. The Accused Instrumentality is a material component for use in practicing the '397 patent, is specifically made and is not a staple article of commerce suitable for substantial non-infringing use.

74. Upon information and belief, since the date of its receipt of notice, Facebook's infringement of the '397 patent has been willful and intentional under the standard announced in *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S.Ct. 1923, 195 L.Ed 2d 278 (2016). Since at least January 25, 2019, Facebook has willfully infringed the '397 patent by refusing to take a license and continuing to make, use, test, sell, license, and/or offer for sale/license the Accused Instrumentality during the relevant time period. Facebook has been aware that it infringes the '397 patent since at least January 25, 2019 and instead of taking a license, Facebook opted to make the business decision to "efficiently infringe" the '397 patent. In doing so, Facebook willfully infringed the '397 Patent.

75. Facebook's infringement has damaged and injured Express Mobile.

**COUNT II - INFRINGEMENT OF U.S. PATENT NO. 7,594,168**

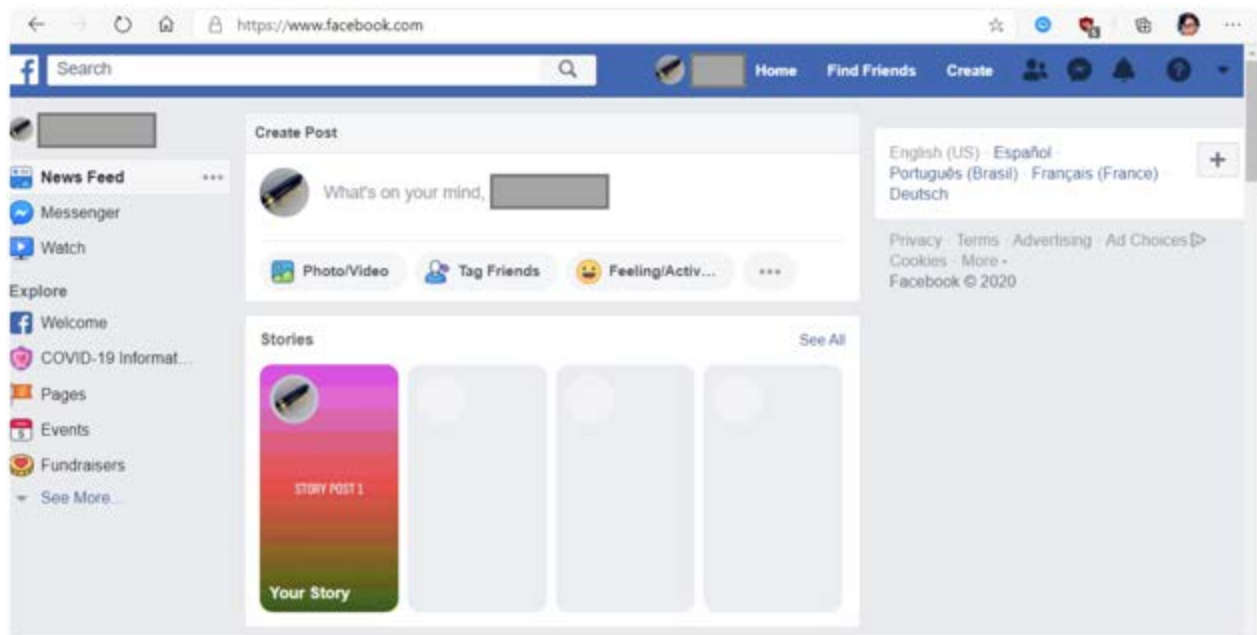
76. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 75 above.

77. Facebook has manufactured, used and/or provided and is continuing to manufacture, use and/or provide its platform, including Facebook.com, its mobile applications and related software and servers (the "Accused Instrumentality") that infringes, either literally



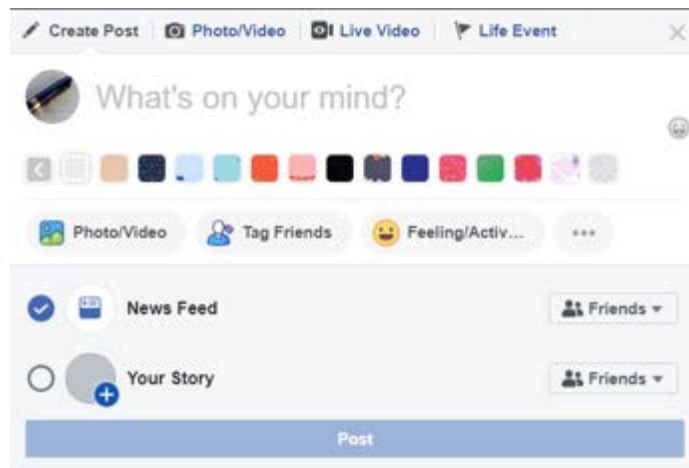
or under the doctrine of equivalents, one or more claims of the '168 patent in violation of 35 U.S.C. § 271(a).

78. Facebook has directly infringed at least claim 1 of the '168 patent by making and using a system for assembling a website.



**Source:** <https://www.facebook.com/>

79. The Accused Instrumentality comprises a server comprising a build engine. For example, the Accused Instrumentality allows users to use at least the “create post” functionality on servers to create personalized web sites. This functionality is available through both Facebook.com and through Facebook’s mobile app, available from the Apple App Store for Apple devices or Google Play for Android devices. Both the app and Facebook.com connect with Facebook servers.



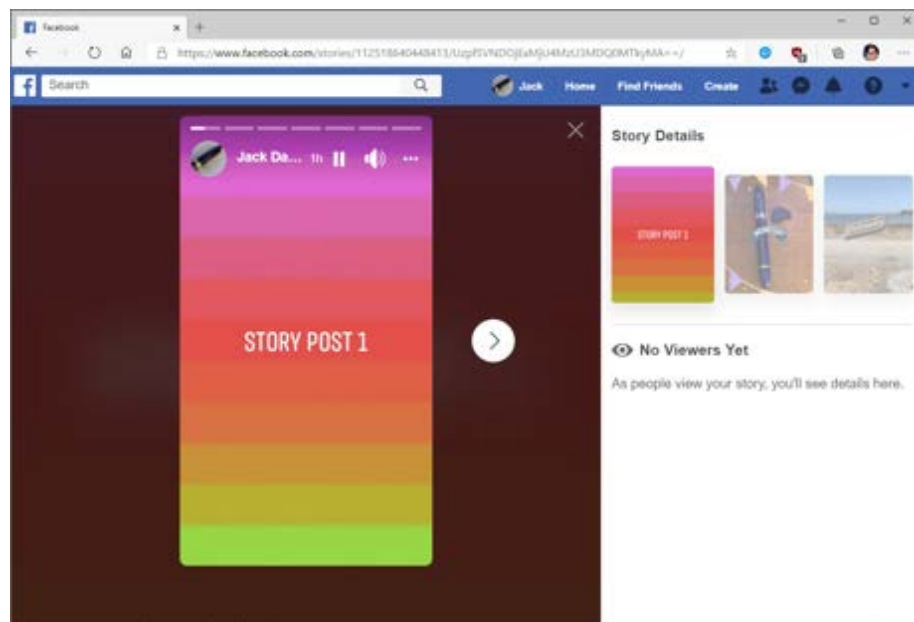
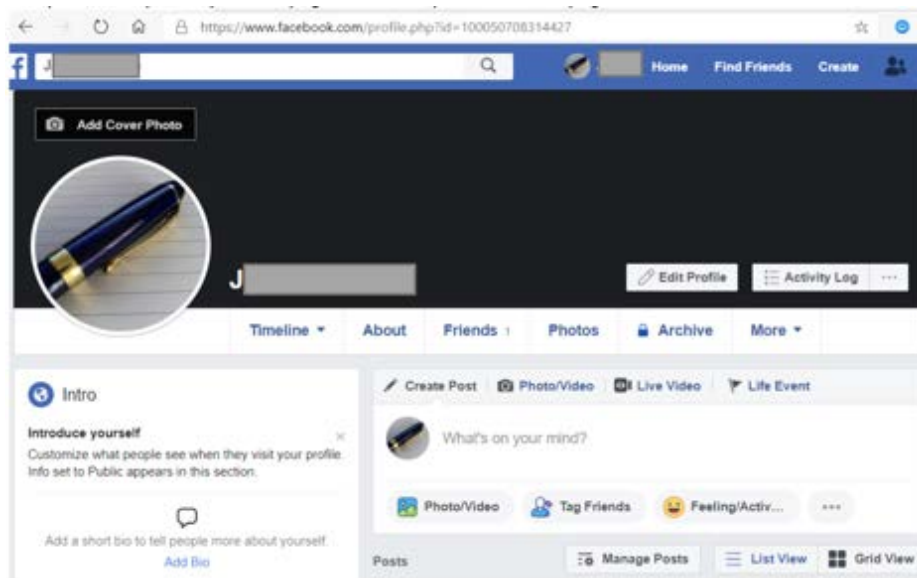
**Source:** <https://www.facebook.com/>

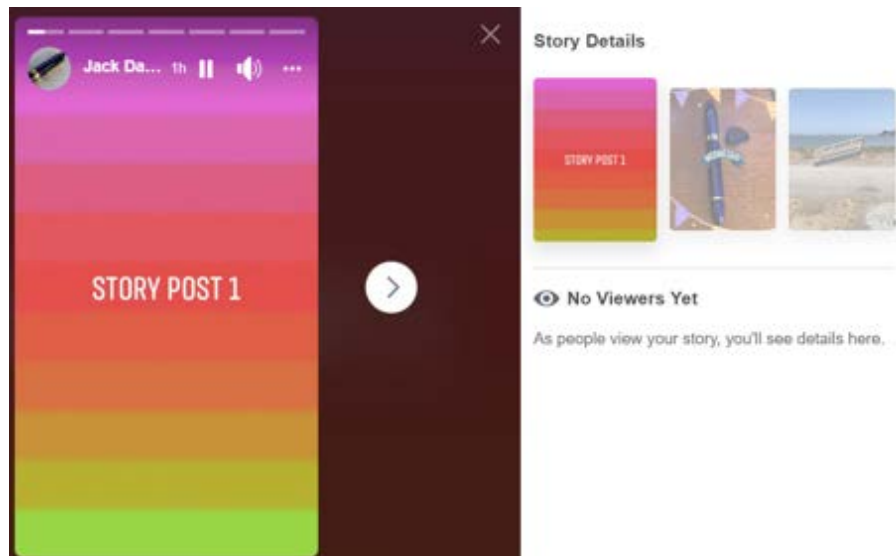
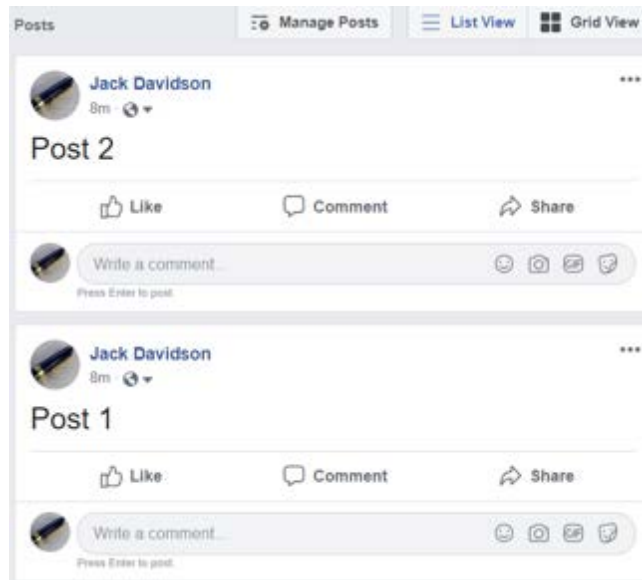


**Source:** Facebook App on iPhone

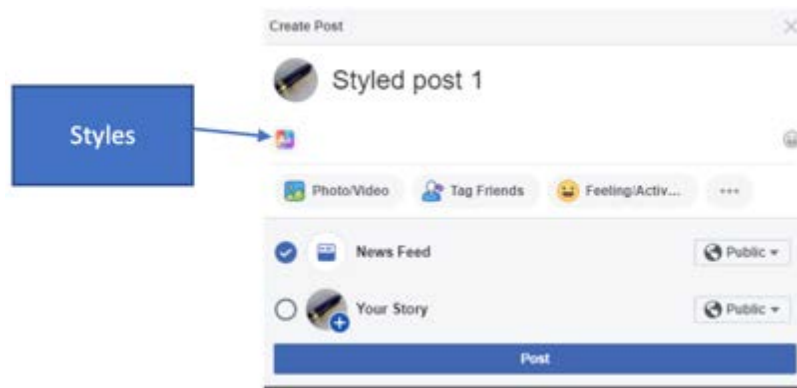
80. The Accused Instrumentality accepts user input to create a web site, the web site comprising a plurality of web pages, each web page comprising a plurality of objects, to accept user input to associate a style with objects of the plurality of web pages. For example, the

Accused Instrumentality accepts user input to create a Facebook page, which is a website. This website is comprised of a plurality of web pages. For example, a first web page is the “Timeline.” A second page is “Stories.” Each page comprises a plurality of objects. For example, the timeline is made up of a plurality of posts. Likewise, a user’s Story is made up a plurality of stories. The white bars on the top of a Story show how many stories are in a user’s Story.

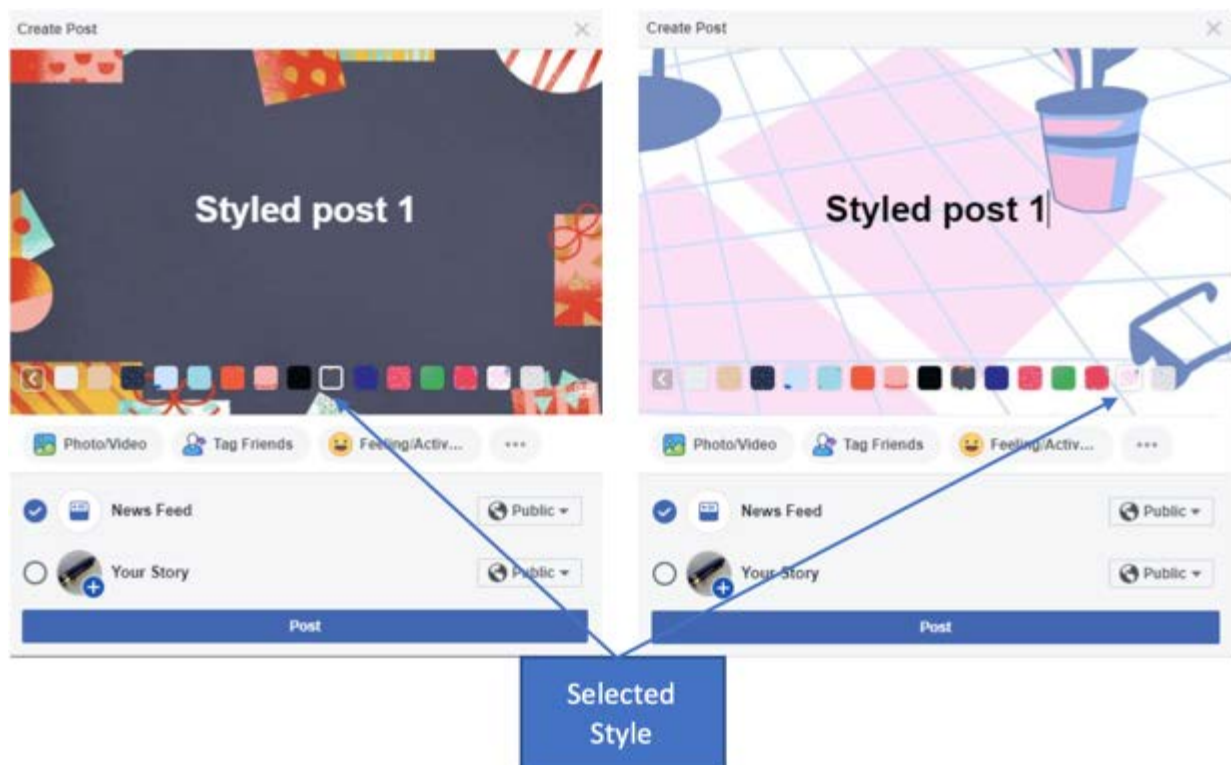




81. When a user creates a post or story, he or she may associate a style with those objects. For example, when creating a post, a user may change the style of a post.

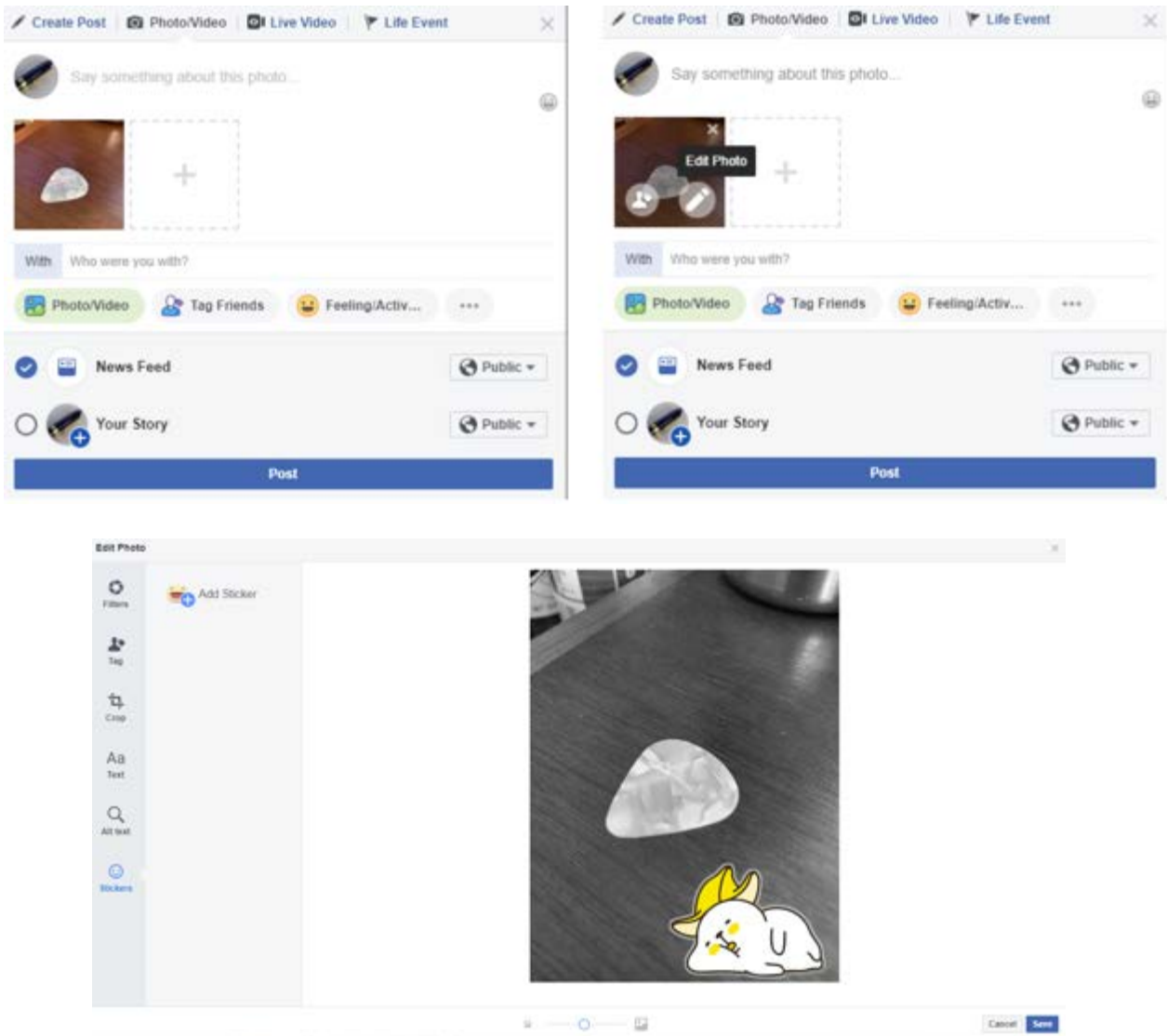


82. Selecting a style out of one of the options changes the style of the object, including changing the background and font color. Two options are shown below. A user may create a post and post it to either their timeline, their Story, or both, using the appropriate radio buttons in the post window.

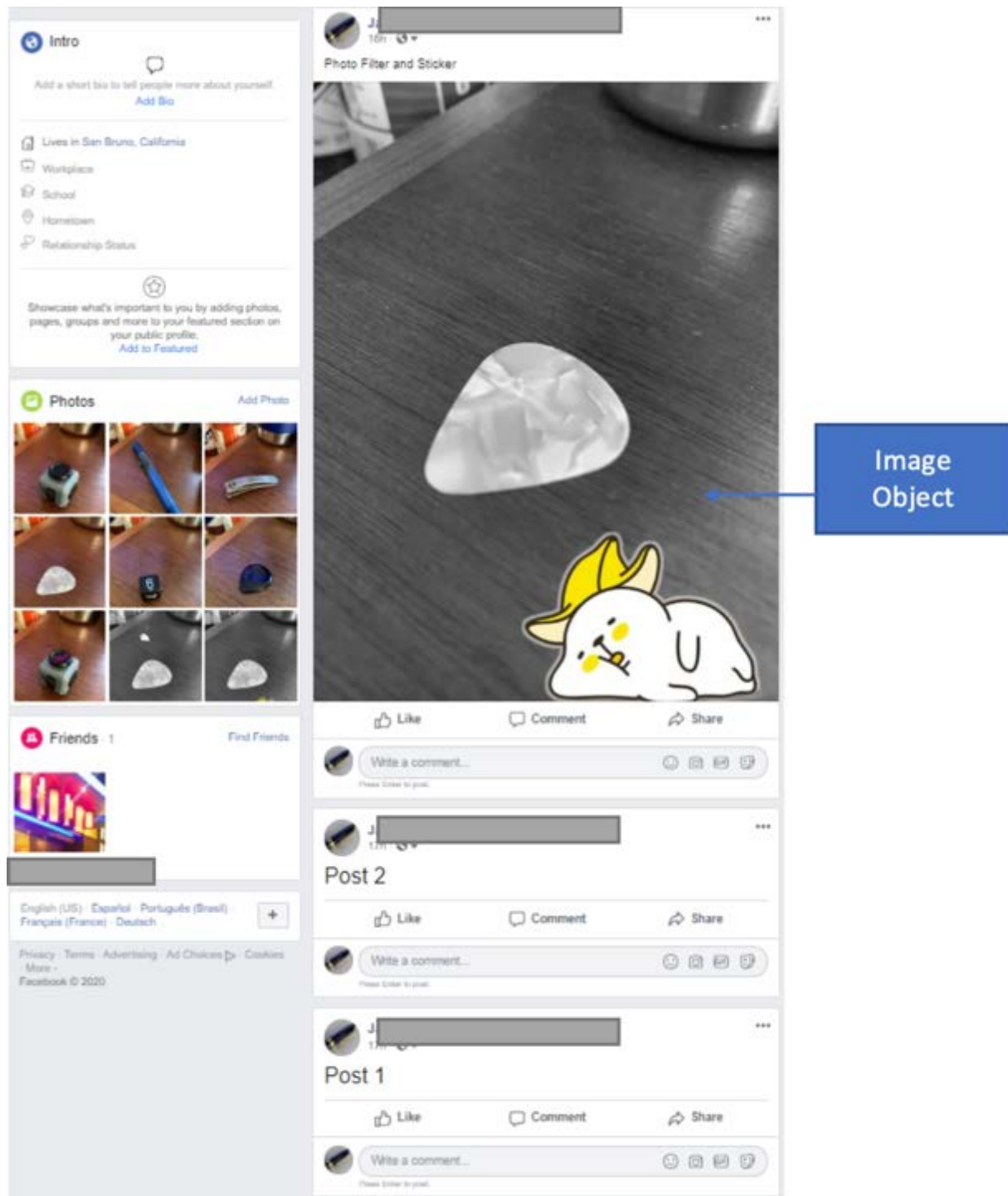


83. Each web page comprises at least one button object or at least one image object. For example, a Timeline page comprises at least an image object. When creating a post, in addition to creating text posts, a user may also create image posts, such as by uploading an

image from their computer or phone. The Accused Instrumentality gives users the tools to edit their photos. Users may add filters, text, or even stickers to their images.

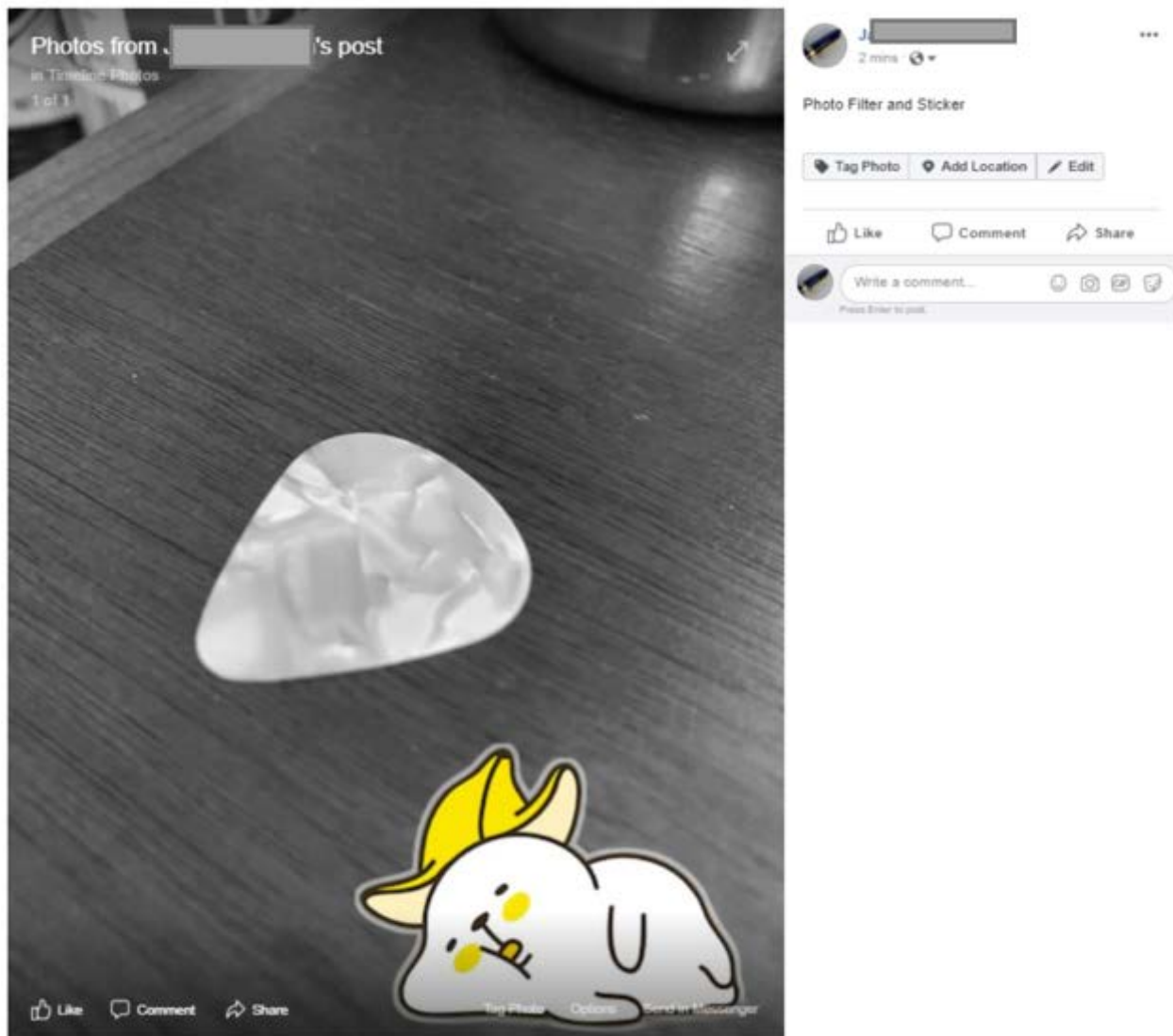


84. Once a user is done editing their photo, it will appear in the selected location – here, in the user's Timeline.



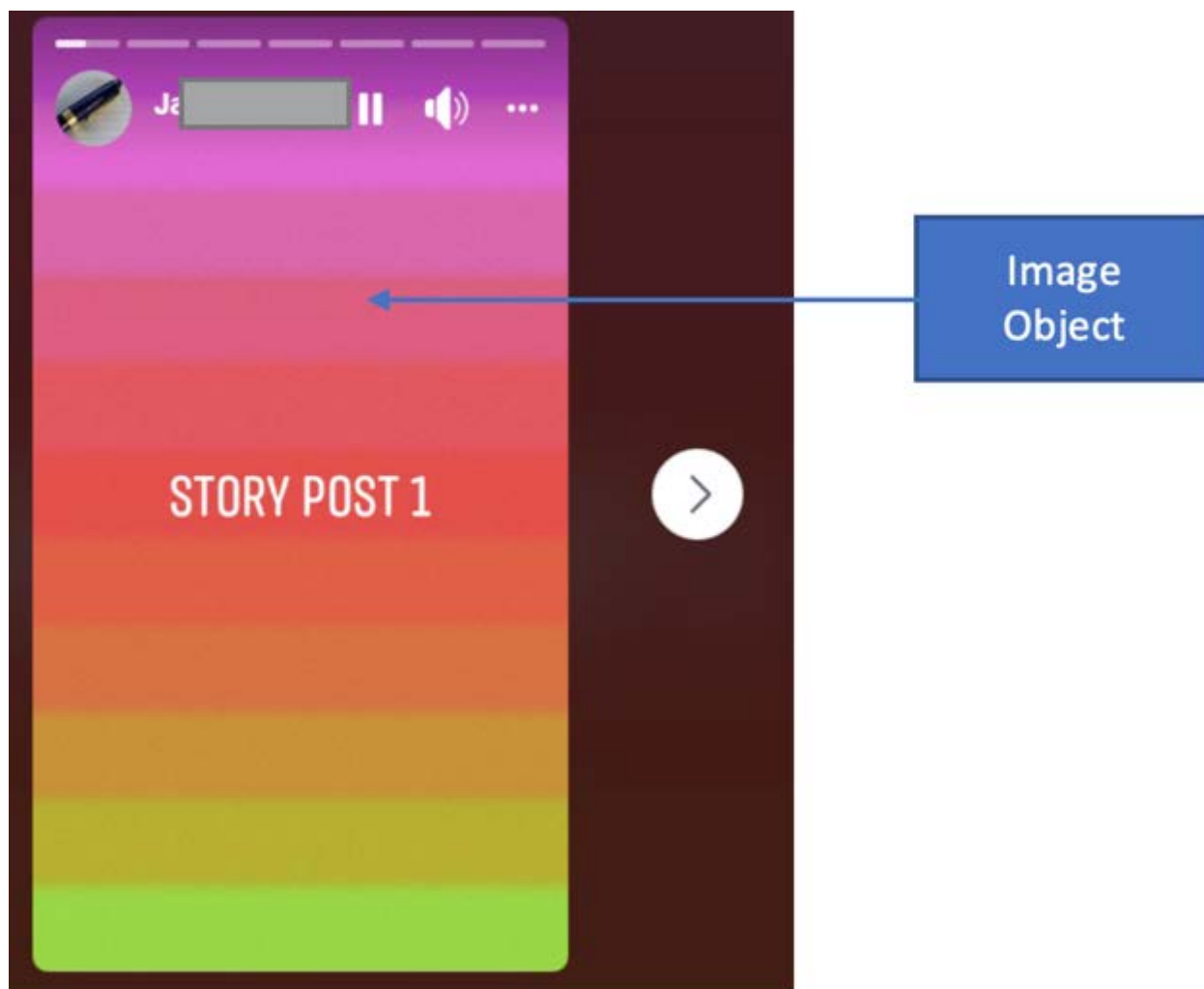
85. This image object is also a button object, as clicking the image functions as a button to open a new window.



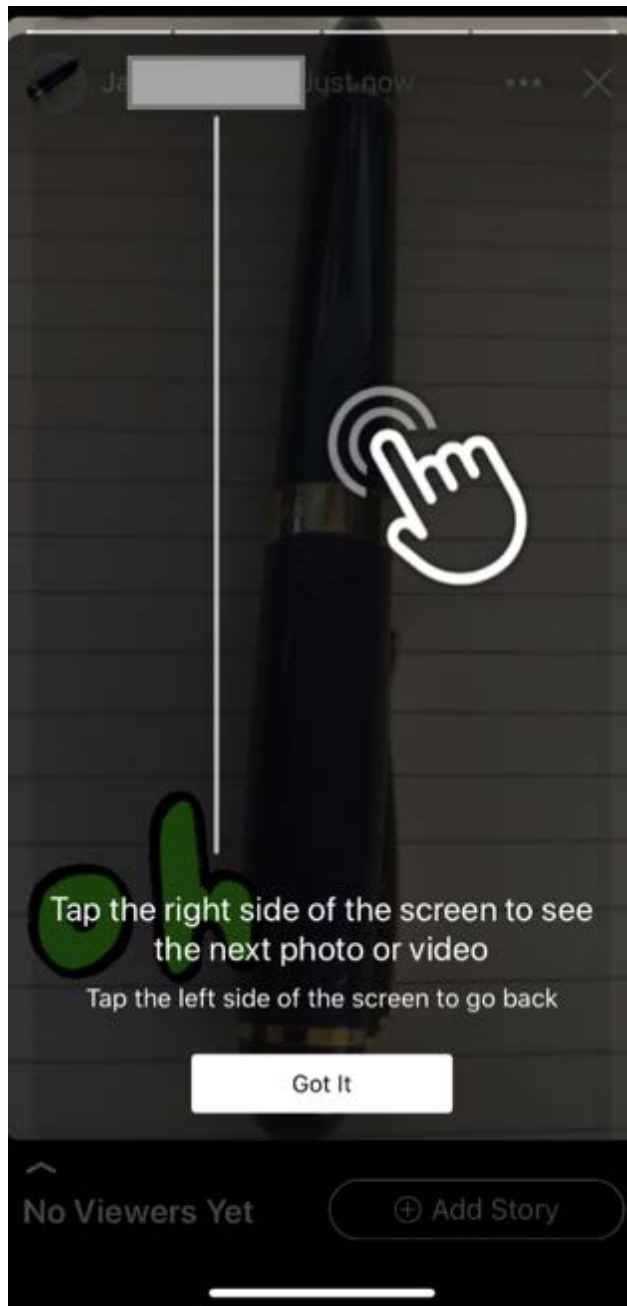


86. A Story page also comprises an image object.



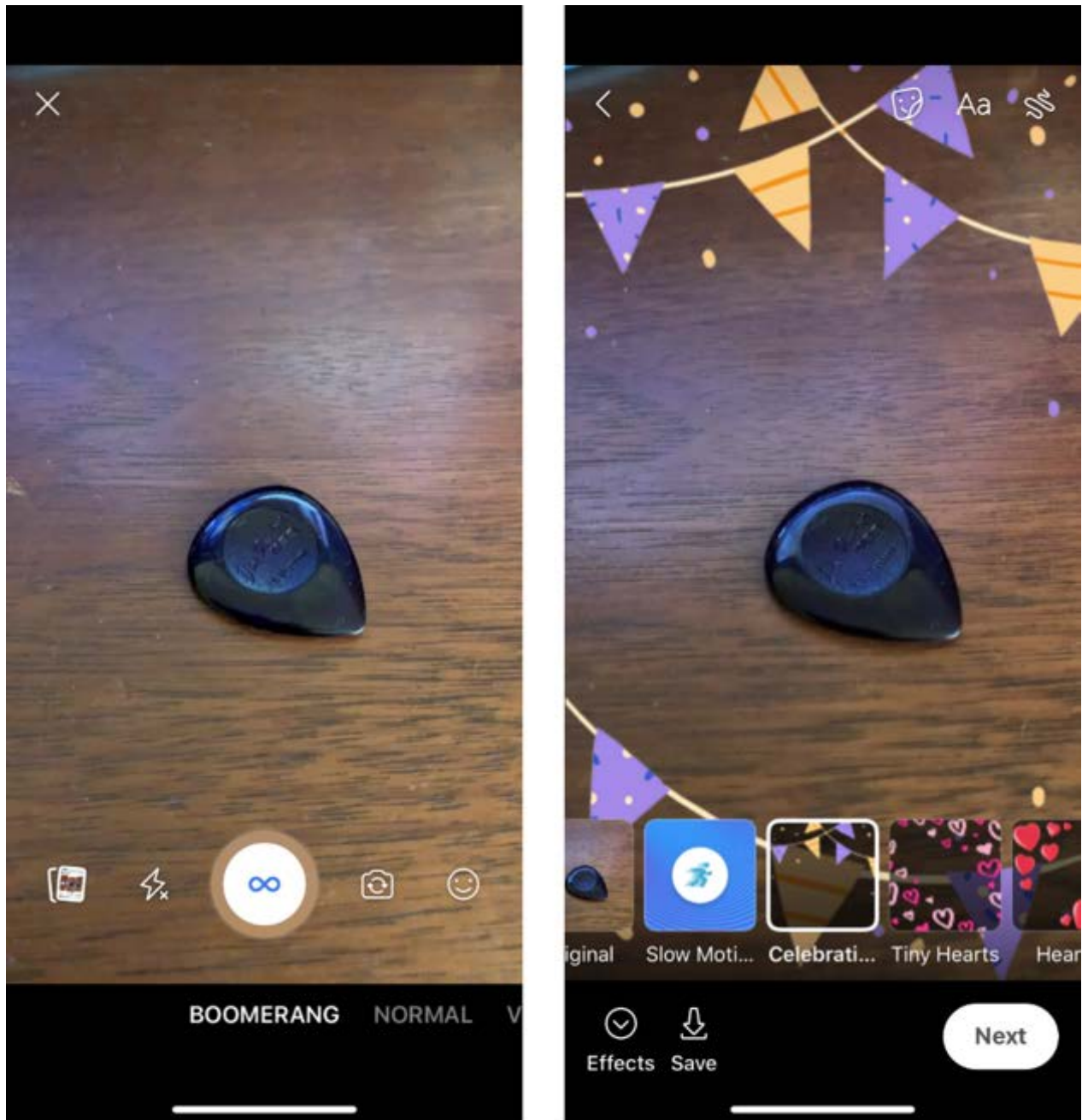


87. When displayed on a phone, a Story image object is also a button object that advances the story to the next story or rewinds to the previous story.



88. The at least one button object or at least one image object is associated with a style that includes values defining transformations and time lines for the at least one button object or at least one image object. When creating a Timeline post, a user may also include video, such as videos created with Facebook's Boomerang. After shooting a Boomerang video,

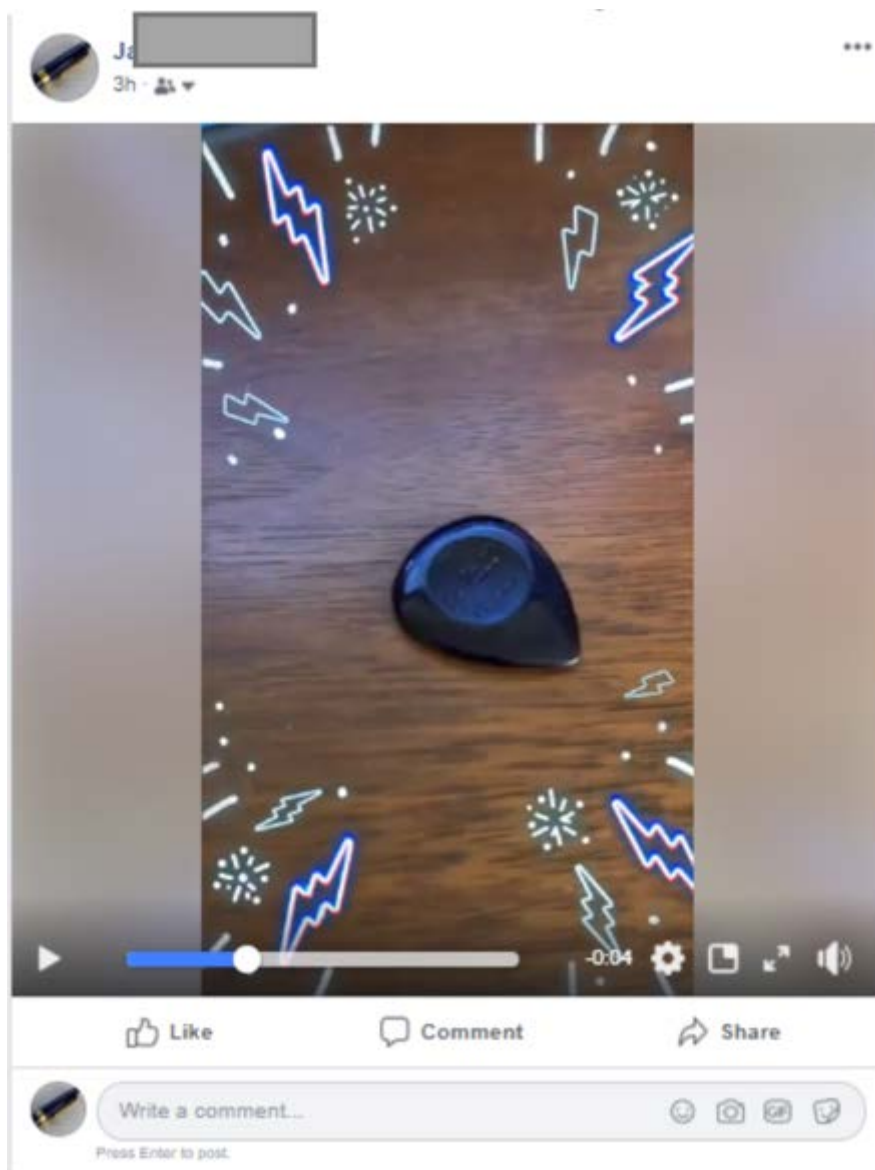
which is a series of images stitched together, Facebook allows a user to further edit the style of the post, such as adding celebratory flags as an additional layer on top of the video.



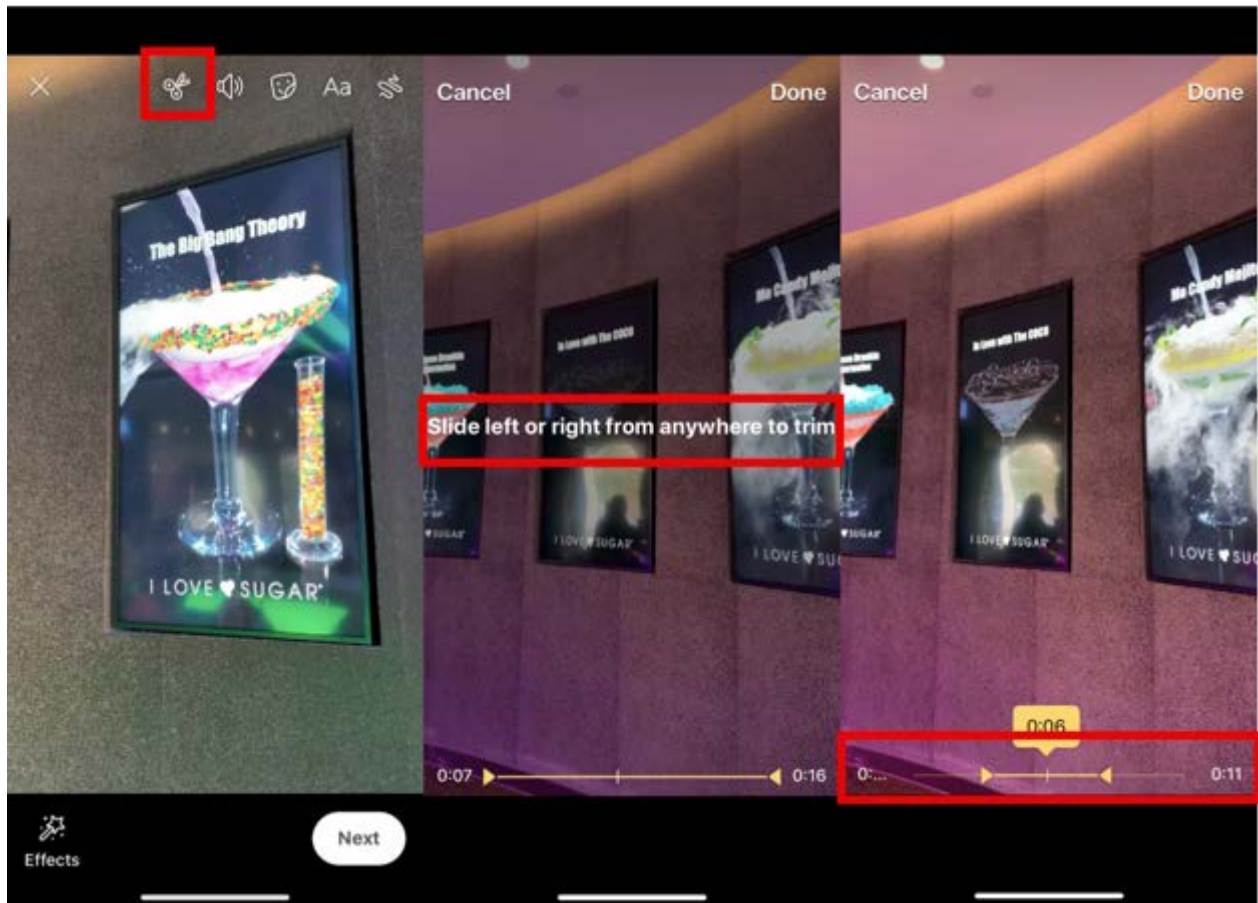
89. As photos are captured in Boomerang, a “progress bar” moves along the outside, showing how long the resulting video will be.



90. When a user posts the video comprised of images to their Timeline, it is displayed with the effects that the user has selected, and the video includes values defining the timeline of the video.

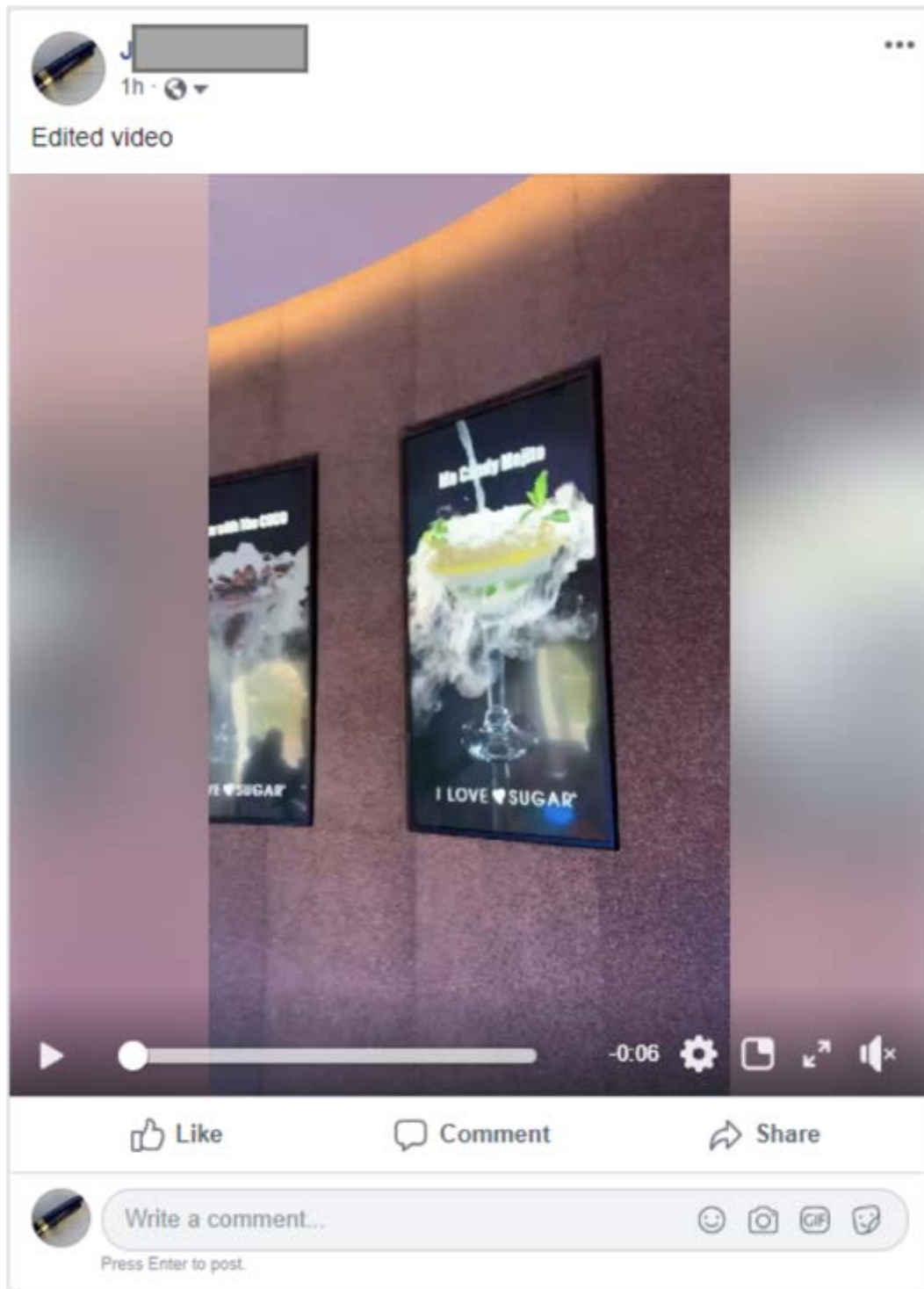


91. Further camera controls are present in the Facebook App. For example, when creating either a Timeline or Story post, the user may edit the length of their video.

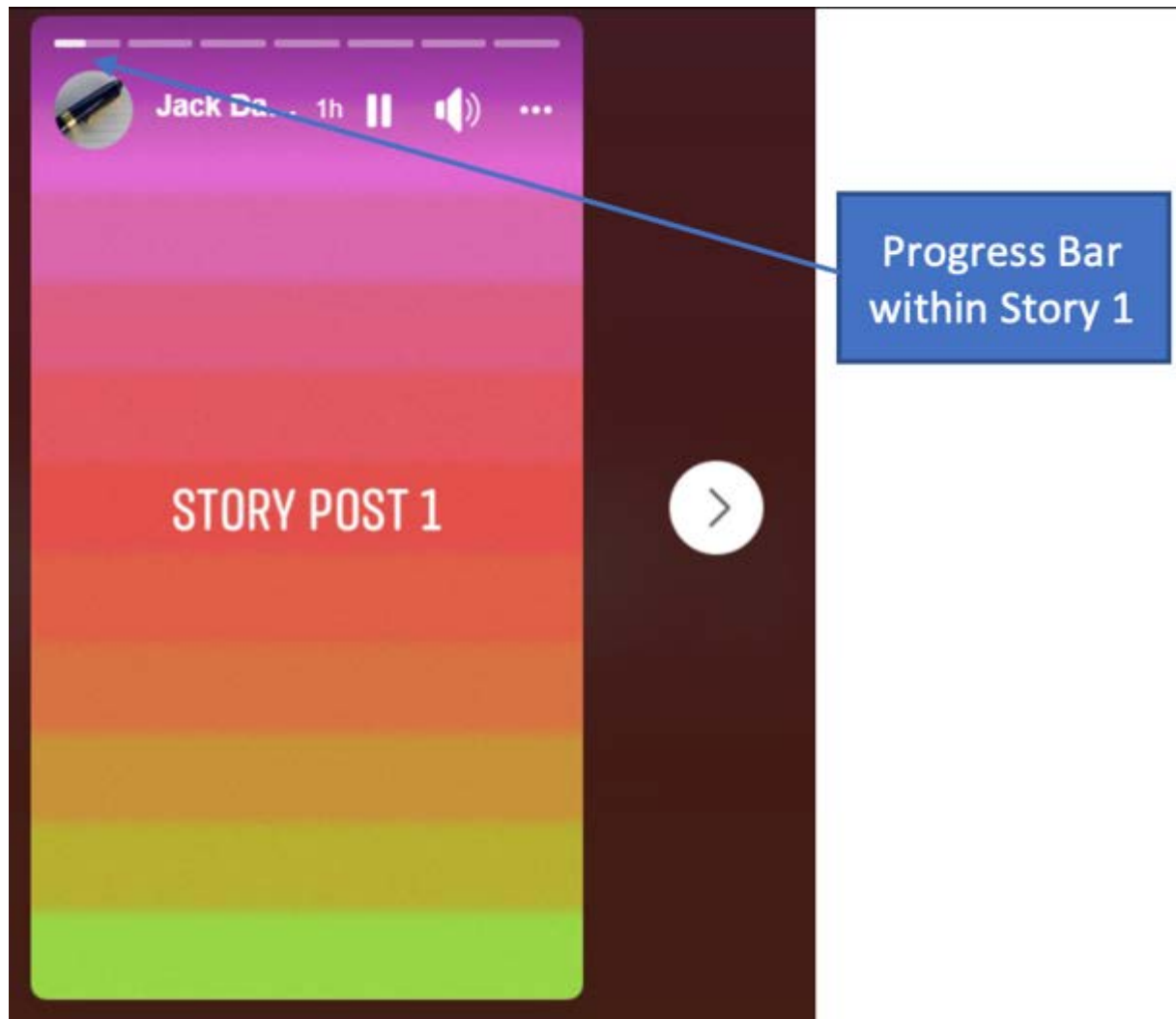


92. The video posted to a Timeline will then display only the timelines that the user selected.

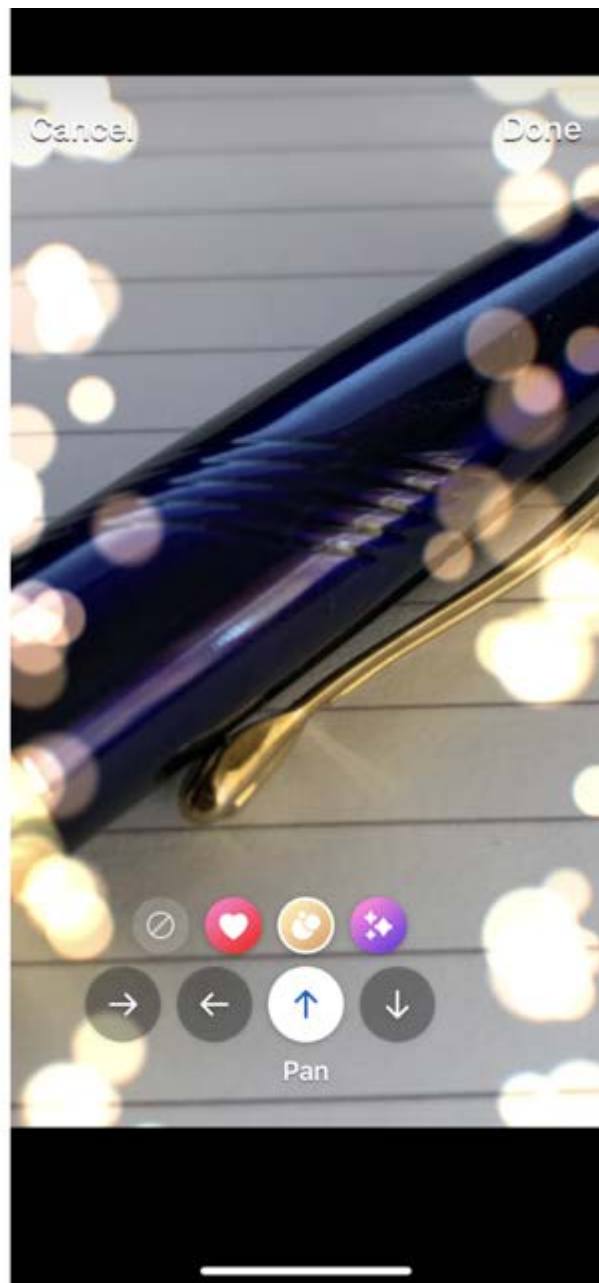
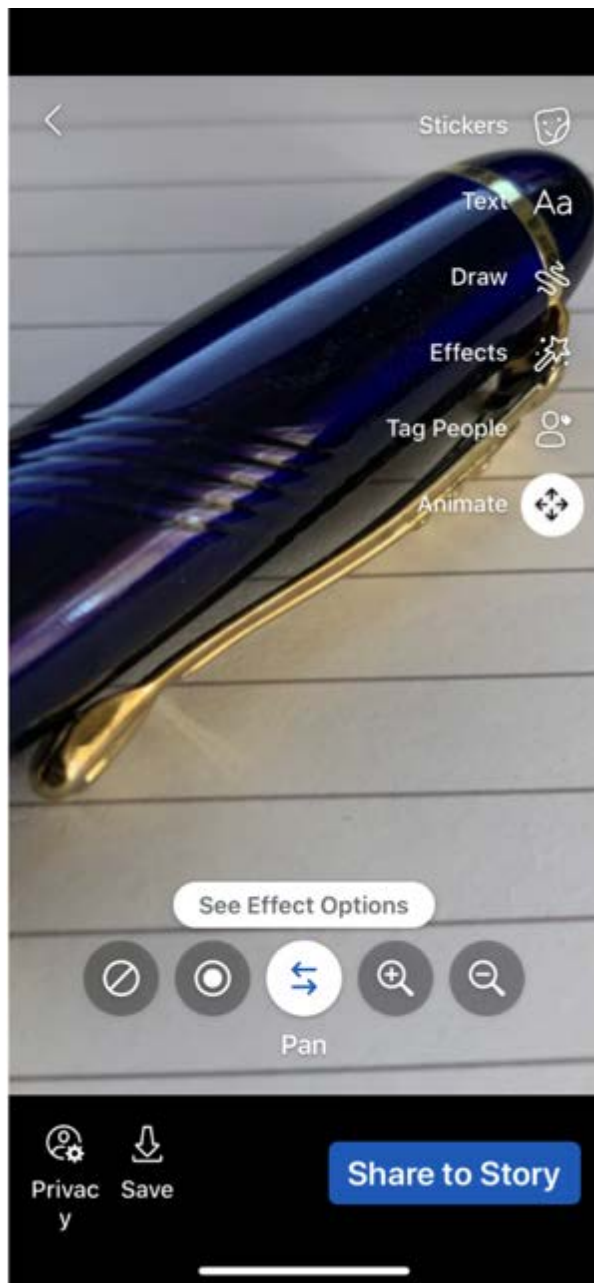




93. Boomerang and regular videos are posted to a Story function the same way. Additionally, the image object on a Story includes values defining transformations and timelines because each image only lasts for 6 seconds before moving on to the next story, as shown in the progress bar displayed for each story.



94. Additionally, images posted to a Story may feature additional animations. For example, when adding an image to a Story, “Animate” effects including “Pan” appear for the user to select. A user may select further options for the selected animation by clicking “See Effect Options,” which may change the animation or add animated effects such as hearts or light bubbles.



95. Each web page is defined entirely by each of the plurality of objects comprising that web page and the style associated with the object. Using the Document Object Model, modern browsers parse the HTML code that comprises web pages into objects.



The Document Object Model (DOM) connects web pages to scripts or programming languages by representing the structure of a document—such as the HTML representing a web page—in memory. Usually, that means JavaScript, although modeling HTML, SVG, or XML documents as objects are not part of the core JavaScript language, as such.

The DOM represents a document with a logical tree. Each branch of the tree ends in a node, and each node contains objects. **DOM methods allow programmatic access to the tree. With them, you can change the document's structure, style, or content.**

[https://developer.mozilla.org/en-US/docs/Web/API/Document\\_Object\\_Model](https://developer.mozilla.org/en-US/docs/Web/API/Document_Object_Model)

The HTML DOM is a standard **object** model and **programming interface** for HTML. It defines:

- **The HTML elements as objects**
- **The properties of all HTML elements**
- The methods to access all HTML elements
- The **events** for all HTML elements

In other words: The HTML DOM is a standard for how to get, change, add, or delete HTML elements.

[https://www.w3schools.com/js/js\\_htmlDOM.asp](https://www.w3schools.com/js/js_htmlDOM.asp)

96. The Accused Instrumentality produces a database with a multidimensional array comprising the objects that comprise the web site including data defining, for each object, the object style, an object number, and an indication of the web page that each object is part of. Facebook used to use a MySQL database with Memcached (“a general-purpose networked in-memory data store”) as its backend. Facebook calls its databases and supporting technologies its “graph.” *Id.* Facebook’s current implementation of its graph improved on its original design and is called TAO (“The Associations and Objects”) <https://www.facebook.com/notes/facebook-engineering/tao-the-power-of-the-graph/10151525983993920/>.

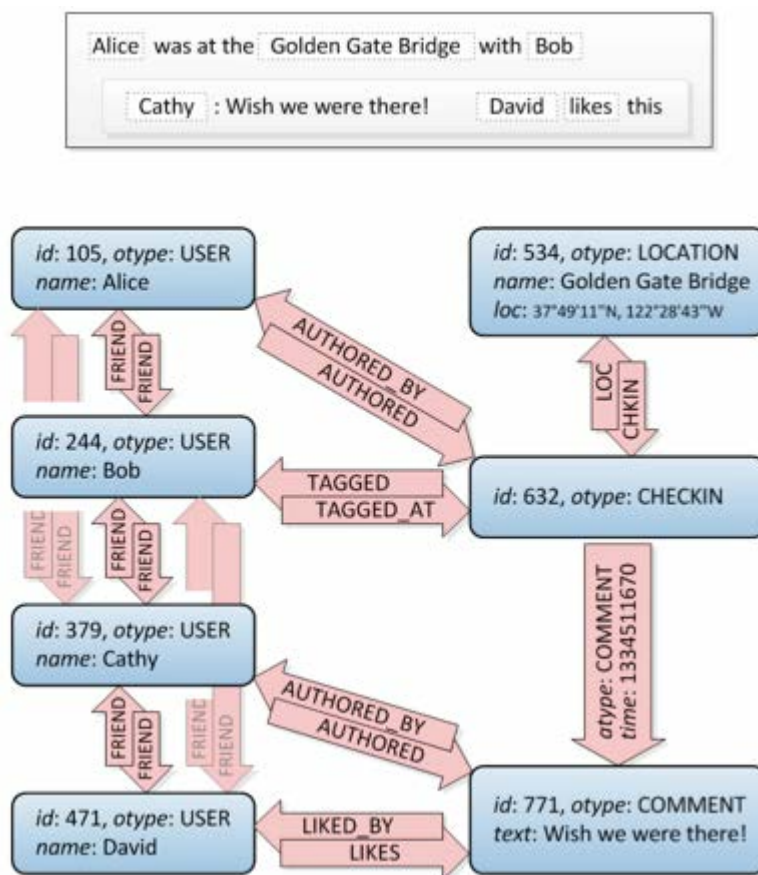
## TAO: The power of the graph

June 25, 2013 at 10:00 AM 

Facebook puts an extremely demanding workload on its data backend. Every time any one of over a billion active users visits Facebook through a desktop browser or on a mobile device, they are presented with hundreds of pieces of information from the social graph. Users see News Feed stories; comments, likes, and shares for those stories; photos and check-ins from their friends -- the list goes on. The high degree of output customization, combined with a high update rate of a typical user’s News Feed, makes it impossible to generate the views presented to users ahead of time. Thus, the data set must be retrieved and rendered on the fly in a few hundred milliseconds.

**Source:** <https://www.facebook.com/notes/facebook-engineering/tao-the-power-of-the-graph/10151525983993920/>

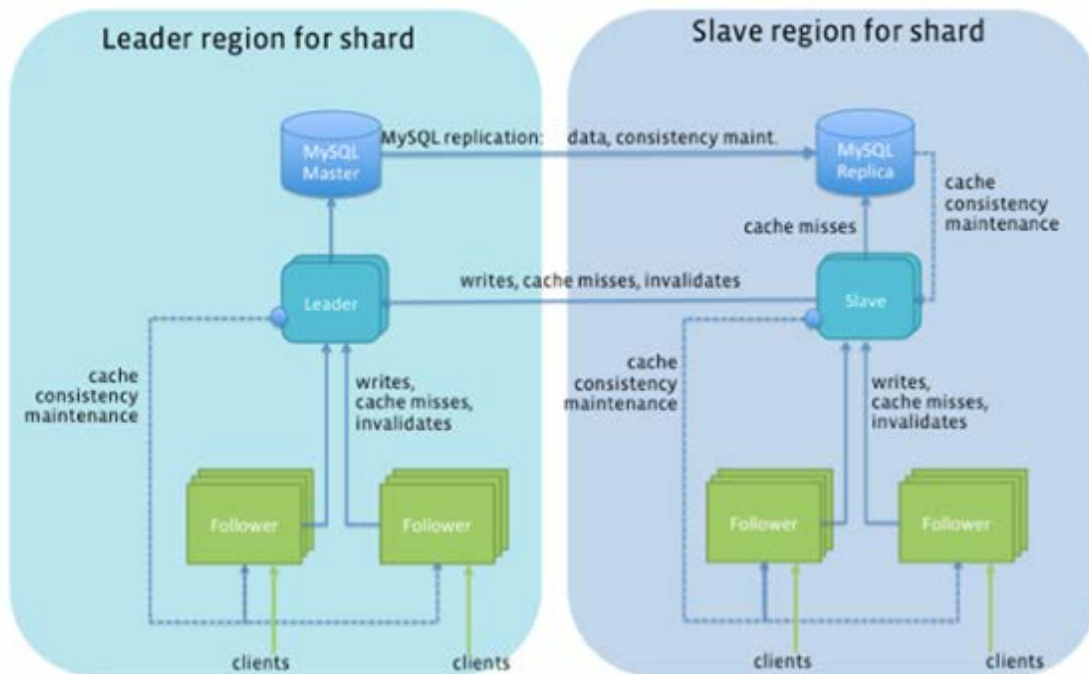
97. The Accused Instrumentality's TAO is a multidimensional array comprising the objects that comprise the web site, including data defining, for each object, the object style, an object number, and an indication of the web page that each object is part of. In the example below, Facebook describes how "every data item" in a post is stored in its TAO.



This simple example shows a subgraph of objects and associations that is created in TAO after Alice checks in at the Golden Gate Bridge and tags Bob there, while Cathy comments on the check-in and David likes it. Every data item, such as a user, check-in, or comment, is represented by a typed object containing a dictionary of named fields. Relationships between objects, such as "liked by" or "friend of," are represented by typed edges (associations) grouped in association lists by their origin. Multiple associations may connect the same pair of objects as long as the types of all those associations are distinct. Together objects and associations form a labeled directed multigraph.

**Source:** <https://www.facebook.com/notes/facebook-engineering/tao-the-power-of-the-graph/10151525983993920/>

98. The Accused Instrumentality provides the database to a server accessible to a web browser. For example, the Accused Instrumentality's TAO is built to serve users using Facebook.com, and has the ability to replicate itself across different shards.



**Source:** <https://www.facebook.com/notes/facebook-engineering/tao-the-power-of-the-graph/10151525983993920/>

99. The database produced by the Accused Instrumentality enables a web browser with access to a runtime engine to generate the web-site from the objects and style data extracted from the provided database. Modern web browsers all include a runtime engine for generating web-sites. Modern web browsers rely on browser engines to interpret and execute JavaScript and HTML to render web pages on a computer.

100. Internet Explorer has relied on Trident (code name for MSHTML) (which has included the Chakra JavaScript Engine, see <http://en.wikipedia.org/wiki/MSHTML>); Edge relies

on EdgeHTML (which also includes the Chakra JavaScript Engine, see <https://docs.microsoft.com/en-us/microsoft-edge/dev-guide>) Safari and Chrome rely on Webkit (which includes WebCore and JavaScript Core, see <http://en.wikipedia.org/wiki/WebKit>); Firefox relies on Gecko (which includes Spidermonkey, see <http://www.mozilla.org/projects/technologies.html>). The browser constructs the website according to the Document Object Model. Using the Document Object Model, modern browsers parse the HTML code that comprises web pages into objects.

The Document Object Model (DOM) connects web pages to scripts or programming languages by representing the structure of a document—such as the HTML representing a web page—in memory. Usually, that means JavaScript, although modeling HTML, SVG, or XML documents as objects are not part of the core JavaScript language, as such.

The DOM represents a document with a logical tree. Each branch of the tree ends in a node, and each node contains objects. **DOM methods allow programmatic access to the tree. With them, you can change the document's structure, style, or content.**

[https://developer.mozilla.org/en-US/docs/Web/API/Document\\_Object\\_Model](https://developer.mozilla.org/en-US/docs/Web/API/Document_Object_Model)

The HTML DOM is a standard **object** model and **programming interface** for HTML. It defines:

- **The HTML elements as objects**
- **The properties of all HTML elements**
- The methods to access all HTML elements
- The **events** for all HTML elements

In other words: The HTML DOM is a standard for how to get, change, add, or delete HTML elements.

[https://www.w3schools.com/js/js\\_htmlDOM.asp](https://www.w3schools.com/js/js_htmlDOM.asp)

101. On information and belief, Facebook became aware of the '168 patent and its infringement thereof at least as early as when Facebook was made aware of its infringement of the '397 patent. The '397 patent and the '168 patent are related patents and, on information and belief, Facebook became aware of the other family members of the '397 patent it infringed around the time Facebook was provided notice of its infringement of the '397 patent by virtue of its investigation into its own infringement. Moreover, on August 31, 2020, Facebook was also made aware of its infringement of the '168 patent when Express Mobile provided notice of Facebook's infringement of the '168 patent to Shayne O'Reilly, Associate General Counsel, IP

Litigation of Facebook. Since at least the time Facebook received notice, Facebook has directly infringed at least claim 1 of the '168 patent and induced others to infringe at least claim 1 of the '168 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe, including but not limited to Facebook's clients, customers, and end users, whose use of the Accused Instrumentality constituted direct infringement of at least one claim of the '168 patent. In particular, Facebook's actions that aid and abet others such as customers and end users to infringe included advertising and distributing the Accused Instrumentality and providing instruction materials, training, and services regarding the Accused Instrumentality. *See e.g.*, facebook.com, facebook.com/help, facebook.com/business/help, <https://www.facebook.com/notes/facebook-engineering/>, [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav), <https://www.facebook.com/help/277242742632461?helpref=search&sr=2&query=facebook%20app>, and related domains and subdomains. Facebook has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Facebook has had actual knowledge of the '168 patent and knowledge that its acts were inducing infringement of the '168 patent since at least the date Facebook received notice that such activities infringed the '168 patent.

102. Facebook is liable as a contributory infringer of the '168 patent under 35 U.S.C. § 271(c) by offering to sell, selling and importing into the United States website or web page authoring tools to be especially made or adapted for use in an infringement of the '168 patent. The Accused Instrumentality is a material component for use in practicing the '168 patent, is specifically made and is not a staple article of commerce suitable for substantial non-infringing use.

103. Upon information and belief, since the date of its receipt of notice, Facebook’s infringement of the ’168 patent has been willful and intentional under the standard announced in *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S.Ct. 1923, 195 L.Ed 2d 278 (2016). Since at least August 31, 2020, Facebook has willfully infringed the ’168 patent by refusing to take a license and continuing to make, use, test, sell, license, and/or offer for sale/license the Accused Instrumentalities. Facebook has been aware that it infringes the ’168 patent since at least August 31, 2020, and instead of taking a license, Facebook has opted to make the business decision to “efficiently infringe” the ’168 patent. In doing so, Facebook willfully infringed the ’168 Patent.

104. Facebook’s infringement has damaged and injured and continues to damage and injure Express Mobile.

**COUNT III - INFRINGEMENT OF U.S. PATENT NO. 9,928,044**

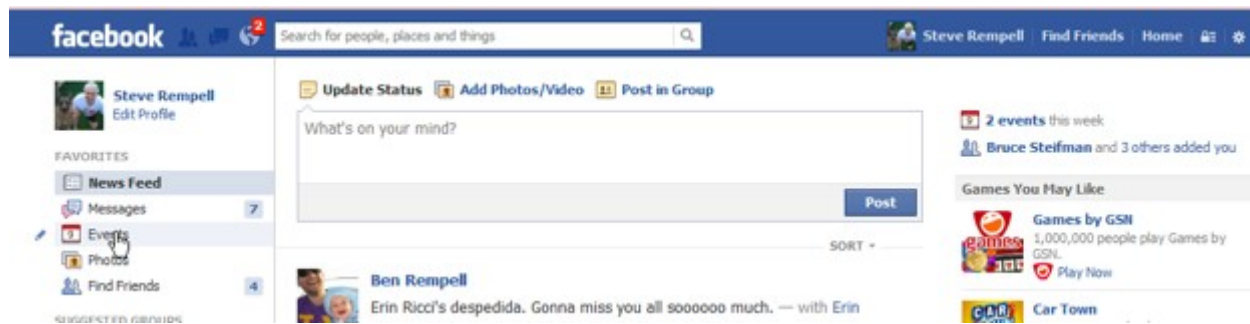
105. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 104 above.

106. Facebook has manufactured, used and/or provided and is continuing to manufacture, use and/or provide its platform, including Facebook.com, its mobile applications and related software and servers (the “Accused Instrumentality”) that infringes, either literally or under the doctrine of equivalents, one or more claims of the ’044 patent in violation of 35 U.S.C. § 271(a).

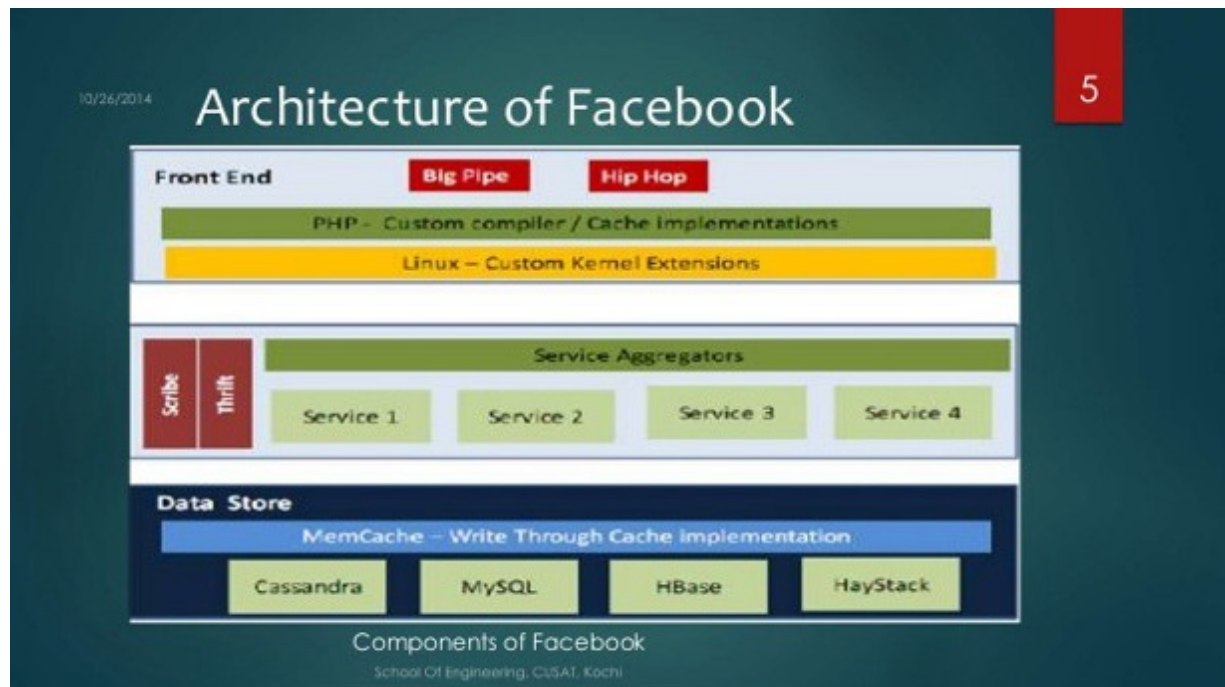
107. Facebook has directly infringed at least claim 1 of the ’044 patent through its Accused Instrumentality that generates code to provide content on a display of a device.

108. The Accused Instrumentality generates code to provide content on the display of a device for each of its users.



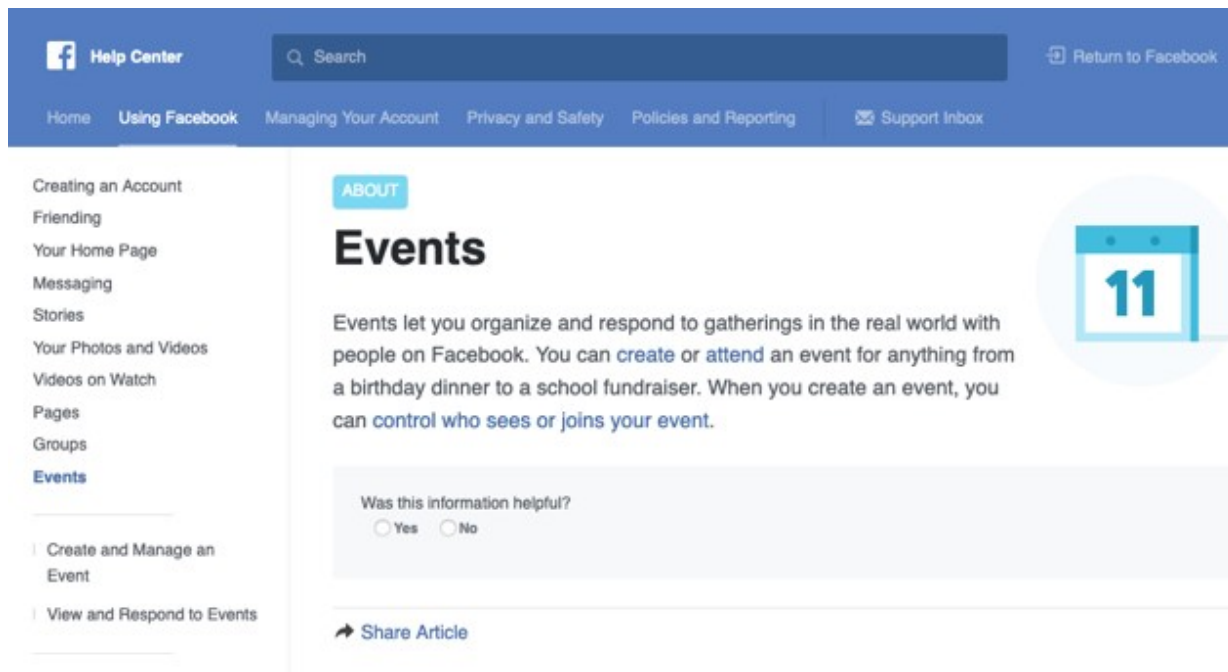


109. The Accused Instrumentality includes memory to store user selections and other information relating to a user's web site, web pages, and the web components or elements that are intended to be displayed.



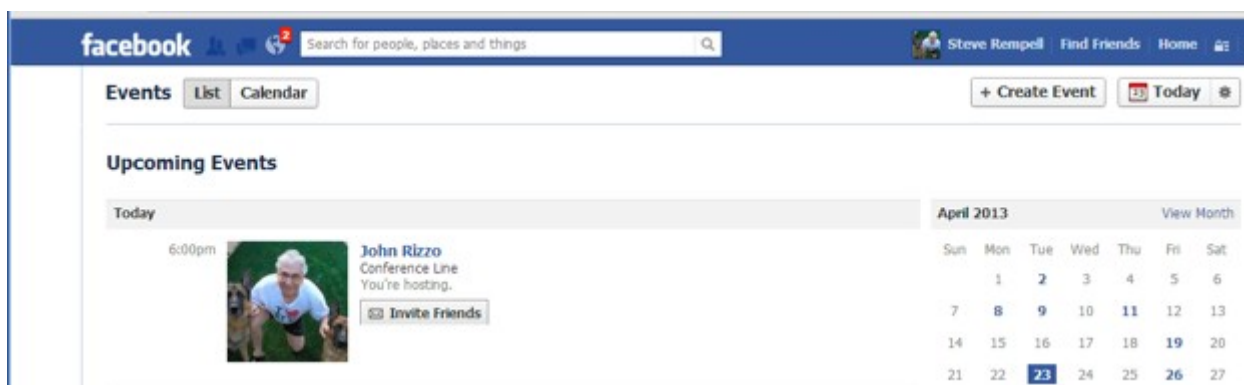
**Source:** <https://www.slideshare.net/Rishikese/overview-of-facebook-scalable-architecture>

110. The Accused Instrumentality includes the ability to select web components to display on a web page, such as “Friending,” “Stories,” and “Events” which are symbolic names.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

111. For example, the “Events” web component corresponds to a number of user interface (UI) objects, which the user may select between. One of the choices listed in the selection panel is “Create Event” which has its own UI objects that support the data format type of “Events,” which takes the user inputs and generates new event outputs.





**Create New Event**

Name: Bob and Mike

Details: patent claims discussion

Where: 1-719-387-0599, participant code 636939

From: 4/26/2013 11:00 am PDT

To: 4/26/2013 12:00 pm

Hosts: Steve Rempel

Privacy: ☐ Invite Only

☒ Guests can invite friends

Create Cancel

112. The Accused Instrumentality's web components include an address of the web service.

```
https://www.facebook.com/ajax/bootloader-
endpoint/?modules=ReactComposerMagicTagSurvey&_user=666824870&_a=1&__dyn=7AgNe-
4amaWxd2u6aJGi9FxqeCwKyaF3oyfiheC263GdwIhE98nyUdUaofVUKbnyorxuF8vDKaxeUW2y4GDxq26czorx6VFegU9
A69V8-cxu5o6u4E9ohwoU8-
6E42Euxm1GzFVo5y68bpUhkEtxy5UrGdx1GE4am2KUKaxi68izU5XxiGzXG48yq2w3eER7xa4oaLK6Uylxfy8qAx2cGcB
Km4U-
4K2iaypolVE9F4uEng6Upz94imCLCDKi8Wgxm4UGqfw_Dz9Wzogy8y6UuxCeCzEmgK7o84bxa78K8wioowOBwIWKG2q4
U5m268BwBzU&_req=3x&_be=1&_pc=PHASED%3Aufi_home_page_pkg&dpr=2&_rev=1001045242&__s=%3A2cm
pkp%3A9zjpnI&_hsi=6724405608756511312-0&fb_dtsg_ag=AQzw-
IYl83HT_shlYYQFx4y25Dn5VmKce5lMyFQFr1CSGQ%3AAQwC6vOx7HSR0Yg8rv3a9wVxso6wuL5ZAFnfh9LPWl_bxw&ja
zoest=28022&_spin_r=1001045242&_spin_b=trunk&__spin_t=1565618297
```



**Note:** Facebook.com uses some but not all of the addresses in these ranges.

### Reach Facebook by IP Address

Below are some of the most common active IP addresses for Facebook.com:

- 69.63.176.13
- 69.63.181.15
- 69.63.184.142
- 69.63.187.17
- 69.63.187.18
- 69.63.187.19
- 69.63.181.11
- 69.63.181.12

In some cases, you can access Facebook by using an IP address instead of its usual URL. This is handy if you want to visit the social networking service but you cannot resolve domain names behind a given network.

**Source:** <https://www.lifewire.com/what-is-the-ip-address-of-facebook-818152>

113. The Accused Instrumentality includes an authoring tool that allows the user to define a UIobject to be displayed. For example, one of the web components “Stories” allows the user to post a story and add a poll, which consists of an input and an output of the “Stories” web service.

The screenshot shows the Facebook Help Center interface. At the top is a blue header with the Facebook logo, 'Help Center', a search bar, and a 'Return to Facebook' link. Below the header is a navigation bar with links: Home, Using Facebook, Managing Your Account, Privacy and Safety, Policies and Reporting, and Support Inbox. On the left is a sidebar menu with categories: Creating an Account, Friending, Your Home Page, Messaging, Stories (highlighted), Your Photos and Videos, Videos on Watch, Pages, Groups, Events, Fundraisers and Donations, Payments, Marketplace, Apps, Facebook Mobile and Desktop Apps, and Accessibility. The main content area is titled 'Page Stories' and contains the following text: 'You can use Page stories to share everyday moments with your Page's followers that will only be visible for 24 hours. You must be a [Page admin or editor](#) to share to your Page's story.' Below this is a 'Getting Started' section with three expandable links: 'How do I share a photo or video to my Page's story?', 'Who can see my Page's story on Facebook and where does it appear?', and 'How do I see insights about my Page's stories?'. A 'Creative Tools' section follows with three expandable links: 'How do I add music to my story on Facebook?', 'How do I add a sticker to my story on Facebook?', and 'How do I add a poll to my story on Facebook?'. A light blue callout box states: 'To add a poll to your story, log into the Facebook app for iOS or Android.' The final paragraph reads: 'When you add a poll to [your story](#) on Facebook, you can ask a question, customize the answers and let people vote for their favorite option.'

**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

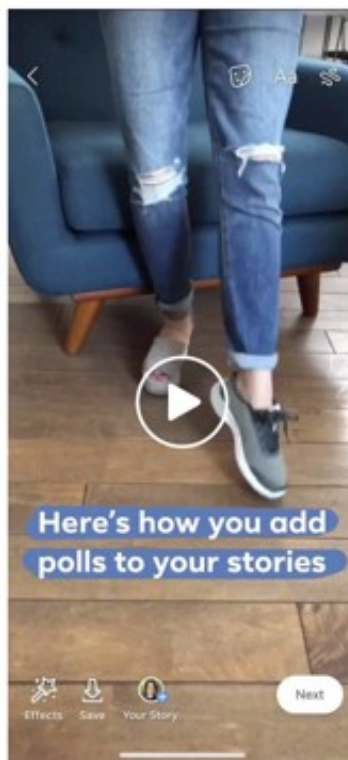
To add a poll to your story on iPhone or Android:

- 1 At the top of your News Feed, tap **+** **Add to Story**.
- 2 Add your photo or video. You can tap a story type at the top (example: **Boomerang**) or select a photo or video from your camera roll. Tap  in the top right to take a new photo or video using the camera.
- 3 Tap  in the top right, then tap **POLL**.
- 4 Type your question, then tap **Yes** or **No** to customize the answers.
- 5 Tap **Done** in the top right.
- 6 Tap **Share to**, then select the audience for your story and tap **Share Now**.

### Poll Results

People can respond to your poll by tapping an option you've provided. When someone selects an answer, they can see the current results of your poll.

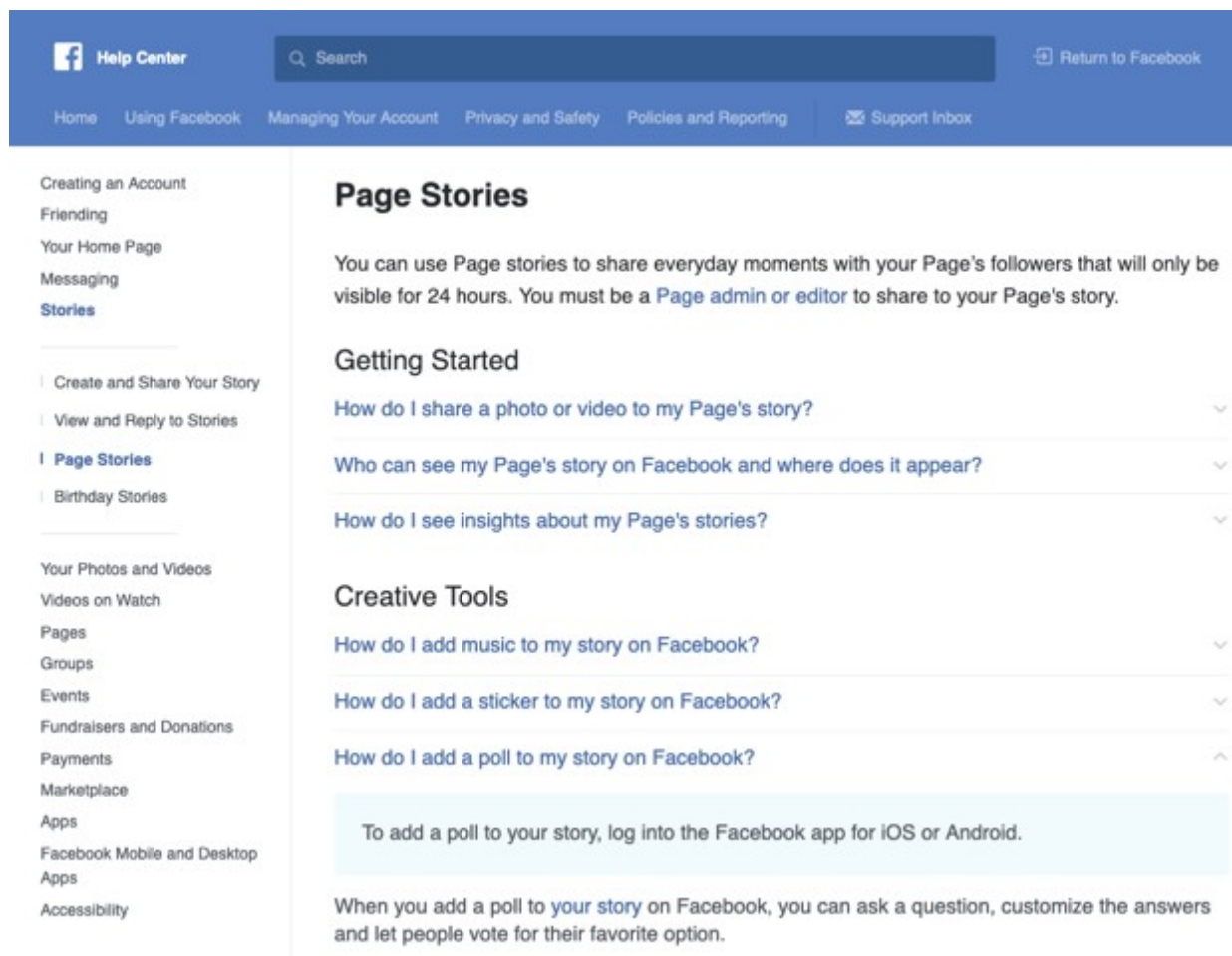
When you view your story and swipe up, you can see how many votes each option received and how each person voted.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

114. When a user of Facebook uses the authoring tool to post a story along with a poll, such as the following example where the user is polling her friends to help her decide which shoes, the authoring tool accesses the computer memory to select the associated UI objects to

allow the user to do so. Once selected, the Accused Instrumentality associates the symbolic name— “Stories”—with the selected defined UI object. The “Stories” symbolic name is only available to corresponding UI objects.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

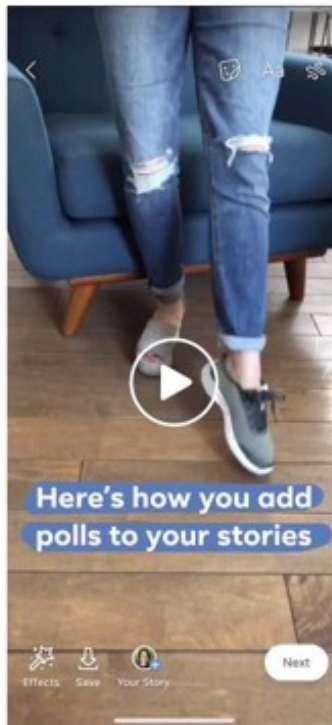
To add a poll to your story on iPhone or Android:

- 1 At the top of your News Feed, tap + **Add to Story**.
- 2 Add your photo or video. You can tap a story type at the top (example: **Boomerang**) or select a photo or video from your camera roll. Tap 📷 in the top right to take a new photo or video using the camera.
- 3 Tap 🗳️ in the top right, then tap **POLL**.
- 4 Type your question, then tap **Yes** or **No** to customize the answers.
- 5 Tap **Done** in the top right.
- 6 Tap **Share to**, then select the audience for your story and tap **Share Now**.

### Poll Results

People can respond to your poll by tapping an option you've provided. When someone selects an answer, they can see the current results of your poll.

When you view your story and swipe up, you can see how many votes each option received and how each person voted.

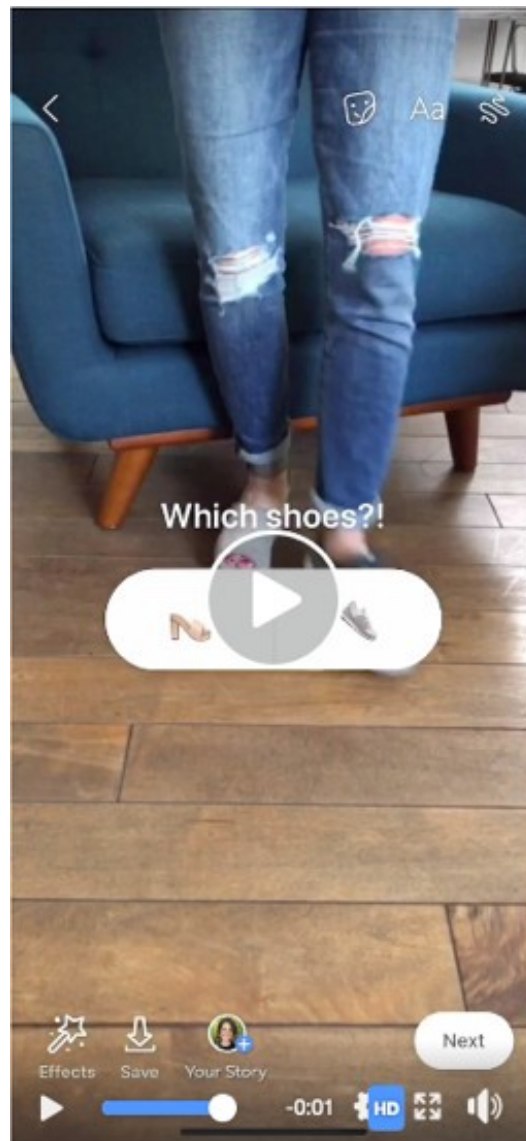


**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

115. The Accused Instrumentality stores information representative of the defined UI object and related settings in a database and retrieves the information for purposes of displaying the UI object on the live web site. In the example below, the Accused Instrumentality stores the



“which shoes” selections made by the user and retrieves those selections for displaying to the user’s friends.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

116. The Accused Instrumentality includes an application that allows users to use Facebook on mobile devices.

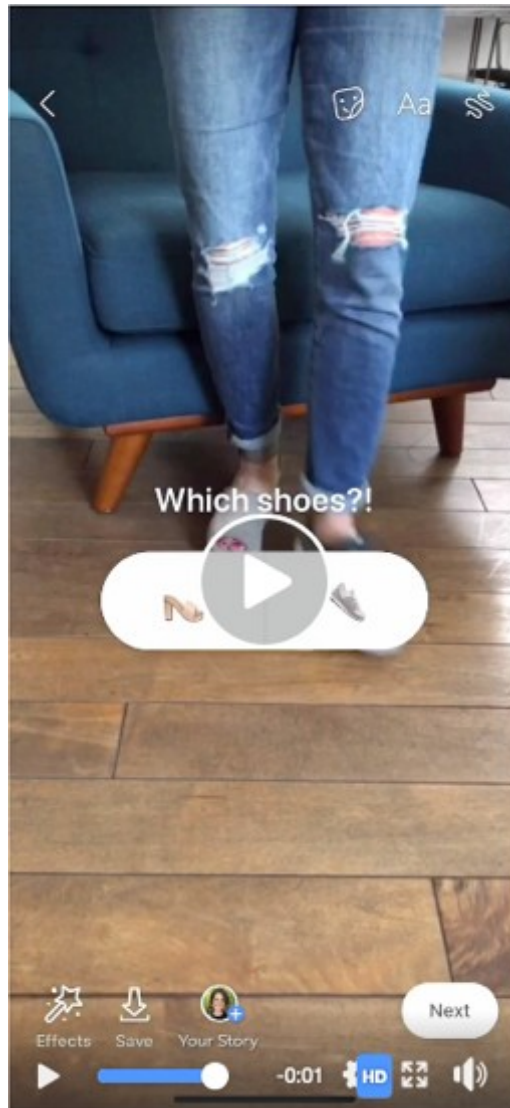


**Source:**<https://www.facebook.com/help/277242742632461?helpref=search&sr=2&query=facebook%20app>

117. The application is provided, for example, in the form of JavaScript files and associated data for the web page view(s) that are stored in the Facebook database.

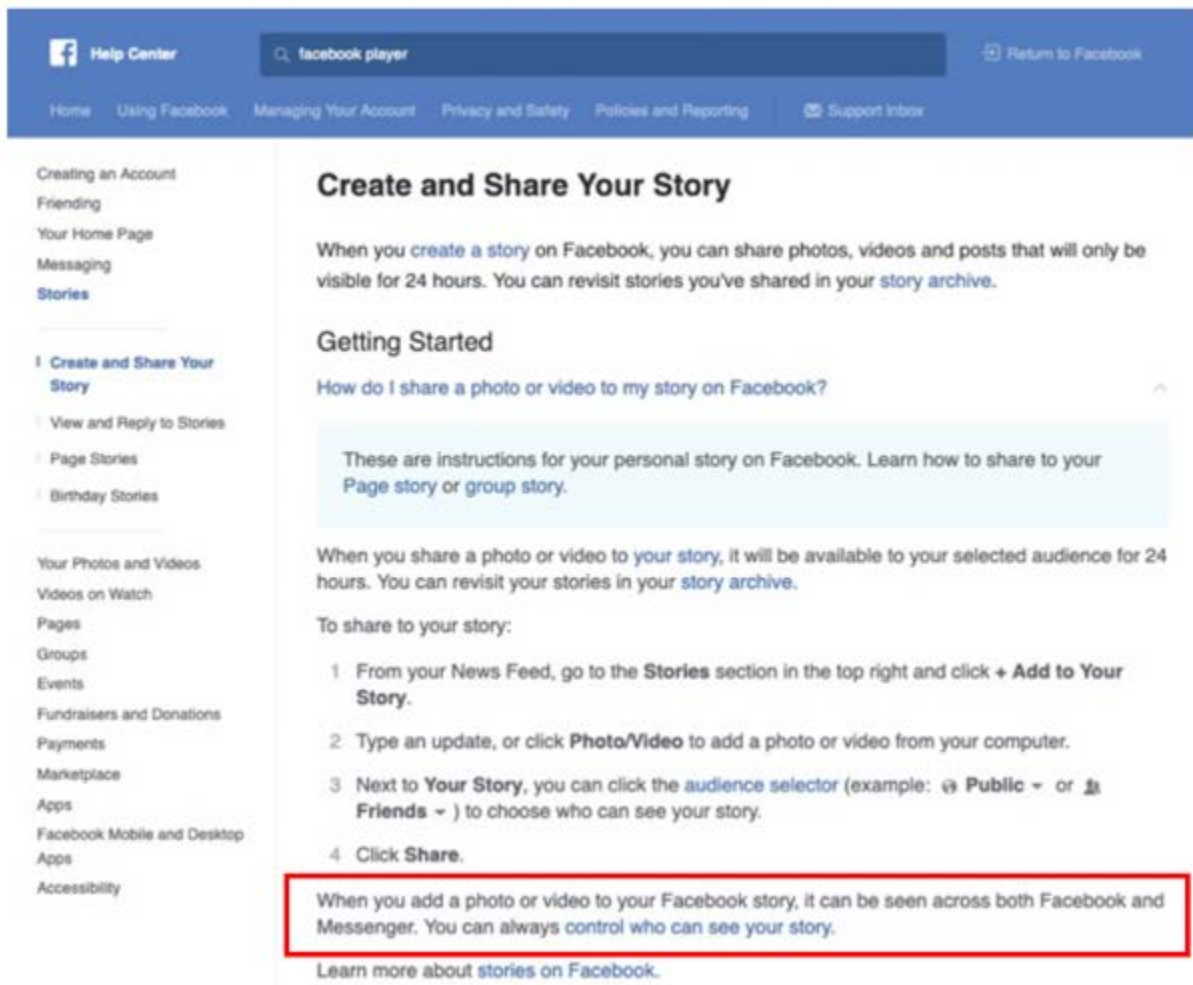
118. When a browser is used to access the Accused Instrumentality, it uses a player which interacts with the application and data stored on the Facebook server. The player accesses and renders the data to generate the web page viewed by the user. The player operates with the virtual machine (for example, SpiderMonkey (Firefox), JavaScriptCore (Safari)) and the information stored in the database in order to generate and display at least a portion of one or more web pages. The player includes code that is device-platform-dependent in order to allow the environment to work across a variety of devices such as personal computers (including laptops and desktops), tablets, browsers, and mobile phones.





**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

119. The Accused Instrumentality sends the application and player code to the client devices to be executed on client devices. As described above and shown below, when a browser accesses Facebook or views a story on Facebook, the application is provided to the device, for example, in the form of JavaScript files and other assets. The browser's player code operates with the virtual machine to interpret this JavaScript and execute it locally.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

120. The Accused Instrumentality's web pages accept input from the user of a device related to the defined UI object, input which is then provided to a web service. The web pages receive the output from the webservice and provide instructions for the display of the device to present the output value in the defined UI object. The player code on the device operates with the virtual machine to execute the JavaScript instructions provided with Facebook in order to receive the output symbolic name and output value. The instructions also provide for the display of this output value in the UI object in order to display the appropriate data to the user. This output value is presented in the UI object for display on the device to the user.

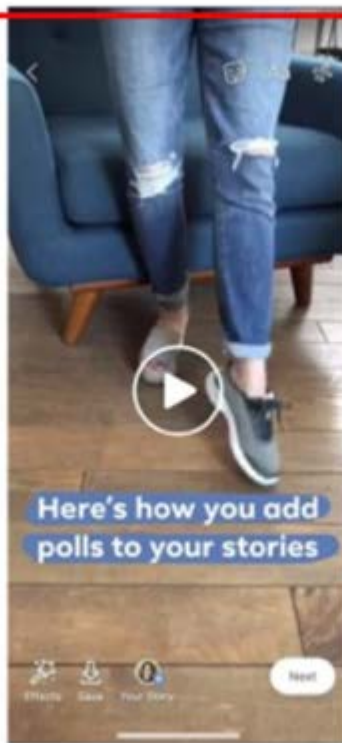
To add a poll to your story on iPhone or Android:

- 1 At the top of your News Feed, tap + **Add to Story**.
- 2 Add your photo or video. You can tap a story type at the top (example: **Boomerang**) or select a photo or video from your camera roll. Tap  in the top right to take a new photo or video using the camera.
- 3 Tap  in the top right, then tap **POLL**.
- 4 Type your question, then tap **Yes** or **No** to customize the answers.
- 5 Tap **Done** in the top right.
- 6 Tap **Share to**, then select the audience for your story and tap **Share Now**.

### Poll Results

People can respond to your poll by tapping an option you've provided. When someone selects an answer, they can see the current results of your poll.

When you view your story and swipe up, you can see how many votes each option received and how each person voted.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

121. Facebook became aware of the '044 patent and its infringement, on August 31, 2020, when Express Mobile provided notice of Facebook's infringement of the '044 patent to Shayne O'Reilly, Associate General Counsel, IP Litigation of Facebook. Since at least the time

Facebook received notice, Facebook has directly infringed at least claim 1 of the '044 patent and induced others to infringe at least claim 1 of the '044 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe, including but not limited to Facebook's clients, customers, and end users, whose use of the Accused Instrumentality constituted direct infringement of at least one claim of the '044 patent. In particular, Facebook's actions that aid and abet others such as customers and end users to infringe included advertising and distributing the Accused Instrumentality and providing instruction materials, training, and services regarding the Accused Instrumentality. *See e.g.*, facebook.com, facebook.com/help, facebook.com/business/help, <https://www.facebook.com/notes/facebook-engineering/>, and related domains and subdomains. Facebook has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Facebook has had actual knowledge of the '044 patent and knowledge that its acts were inducing infringement of the '044 patent since at least the date Facebook received notice that such activities infringed the '044 patent.

122. Facebook is liable as a contributory infringer of the '044 patent under 35 U.S.C. § 271(c) by offering to sell, selling and importing into the United States website or web page authoring tools to be especially made or adapted for use in an infringement of the '044 patent. The Accused Instrumentality is a material component for use in practicing the '044 patent, is specifically made and is not a staple article of commerce suitable for substantial non-infringing use.

123. Upon information and belief, since the date of its receipt of notice, Facebook's infringement of the '044 patent has been willful and intentional under the standard announced in *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S.Ct. 1923, 195 L.Ed 2d 278 (2016). Since at least August 31, 2020, Facebook has willfully infringed the '044 patent by refusing to take a license

and continuing to make, use, test, sell, license, and/or offer for sale/license the Accused Instrumentality. Facebook has been aware that it infringes the '044 patent since at least August 31, 2020, and instead of taking a license, Facebook has opted to make the business decision to “efficiently infringe” the '044 patent. In doing so, eBay willfully infringed the '044 Patent.

124. Facebook’s infringement has damaged and injured and continues to damage and injure Express Mobile.

**COUNT IV - INFRINGEMENT OF U.S. PATENT NO. 9,471,287**

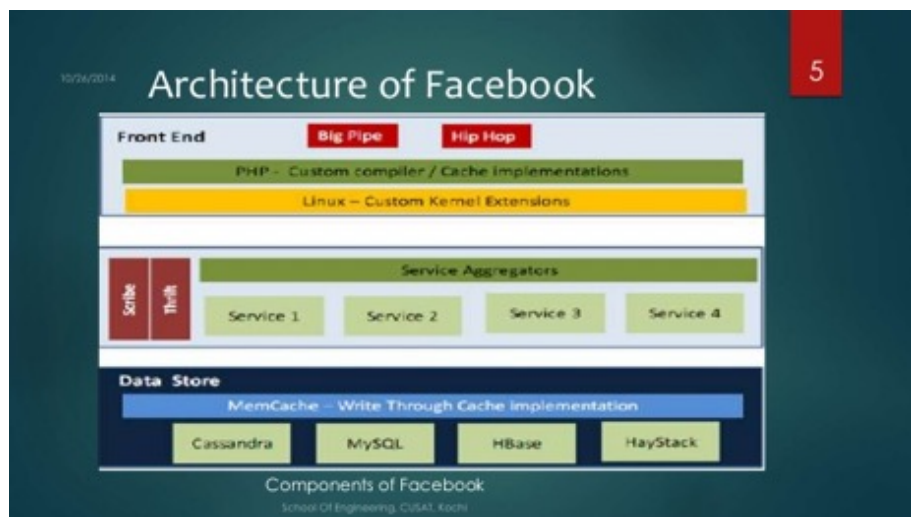
125. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 124 above.

126. Facebook has manufactured, used and/or provided and is continuing to manufacture, use and/or provide its platform, including Facebook.com, its mobile applications and related software and servers (the “Accused Instrumentality”) that infringes, either literally or under the doctrine of equivalents, one or more claims of the '287 patent in violation of 35 U.S.C. § 271(a).

127. Facebook has directly infringed at least claim 1 of the '287 patent through its Accused Instrumentality that generates code to provide content on a display of a device.

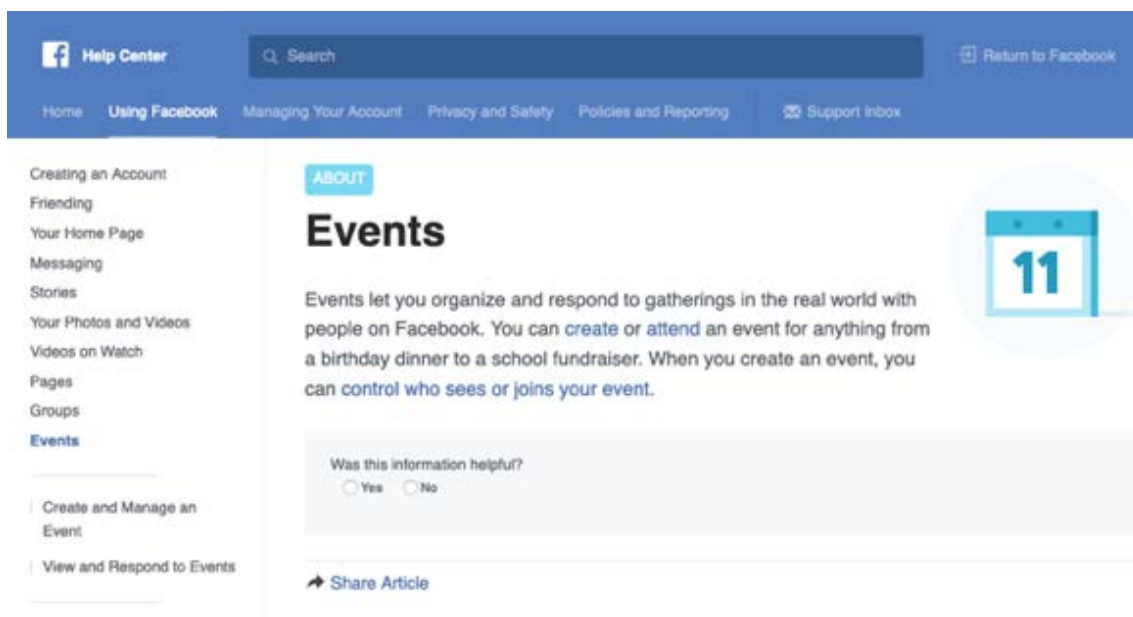
128. The Accused Instrumentality generates code to provide content on the display of a device for each of its users.

129. The Accused Instrumentality includes memory to store user selections and other information relating to a user’s web site, web pages, and the web components or elements that are intended to be displayed.



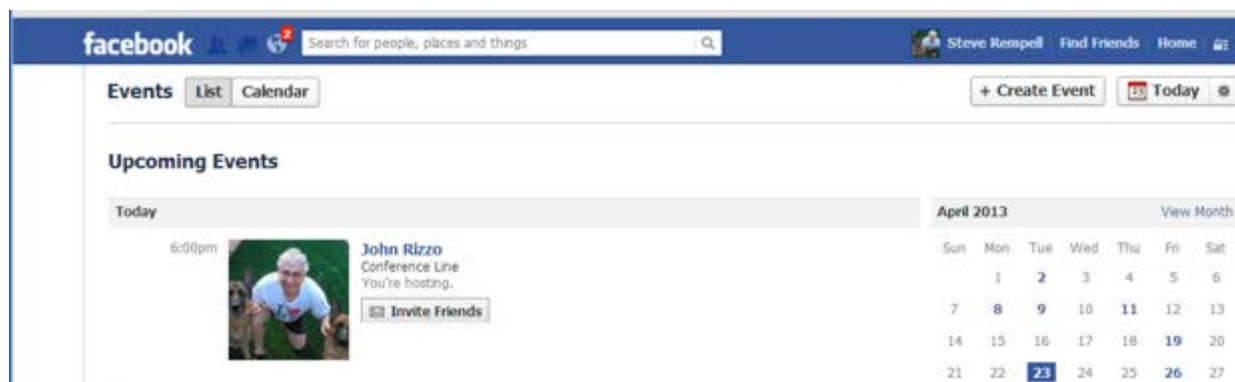
**Source:** <https://www.slideshare.net/Rishikese/overview-of-facebook-scalable-architecture>

130. The Accused Instrumentality includes the ability to select web components to display on a webpage, such as “Friending,” “Stories,” and “Events” which are symbolic names.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

131. The “Events” web component corresponds to a number of user interface (UI) objects, which the user may select between. One of the choices listed in the selection panel is the “Create Event” which has its own UI objects that support the data format type of “Events,” which takes the user inputs and generates new event outputs.





132. The Accused Instrumentality's web components include an address of the web service

```
https://www.facebook.com/ajax/bootloader-
endpoint/?modules=ReactComposerMagicTagSurvey&__user=666824870&__a=1&__dyn=7AgNe-
4amaWxd2u6aJGi9FxeCwKyaF3oyfiheC263GdwIhE98nyUdUaofVUKbnyorxuF8vDKaxeUW2y4GDxq26czorx6VFEgU9
A69V8-cxu5o6u4E9ohwoU8-
6E42Euxm1GzFVo5y68bpUhKEtxy5UrGdx1GE4am2KUKaxi68izU5XxiGzXG48yq2W3eER7xa4oaLK6Uylxfy8qAx2cGcB
Km4U-
4K2iaypolVE9F4uEnG6Upz94imcLCDKi8wGxm4UGqfw_Dz9Wzogy8y6UuxCeCzEmgK7o84bxa78K8wioow0wBwIwKG2q4
U5m268BwBzU&__req=3x&__be=1&__pc=PHASED%3Aufi_home_page_pkg&dpr=2&__rev=1001045242&__s=%3A2cm
pkp%3A9zjpn&__hsi=6724405608756511312-0&fb_dtsg_ag=AQzw-
IYl83HT_shlYYQFx4y25Dn5VmKce5lMyFQFrLCSGQ%3AAQwC6v0x7HSR0Yg8rV3a9wVxso6wuL5ZAFnfh9LPWl_bxw&ja
zoest=28022&__spin_r=1001045242&__spin_b=trunk&__spin_t=1565618297
```



**Note:** Facebook.com uses some but not all of the addresses in these ranges.

#### Reach Facebook by IP Address

Below are some of the most common active IP addresses for Facebook.com:

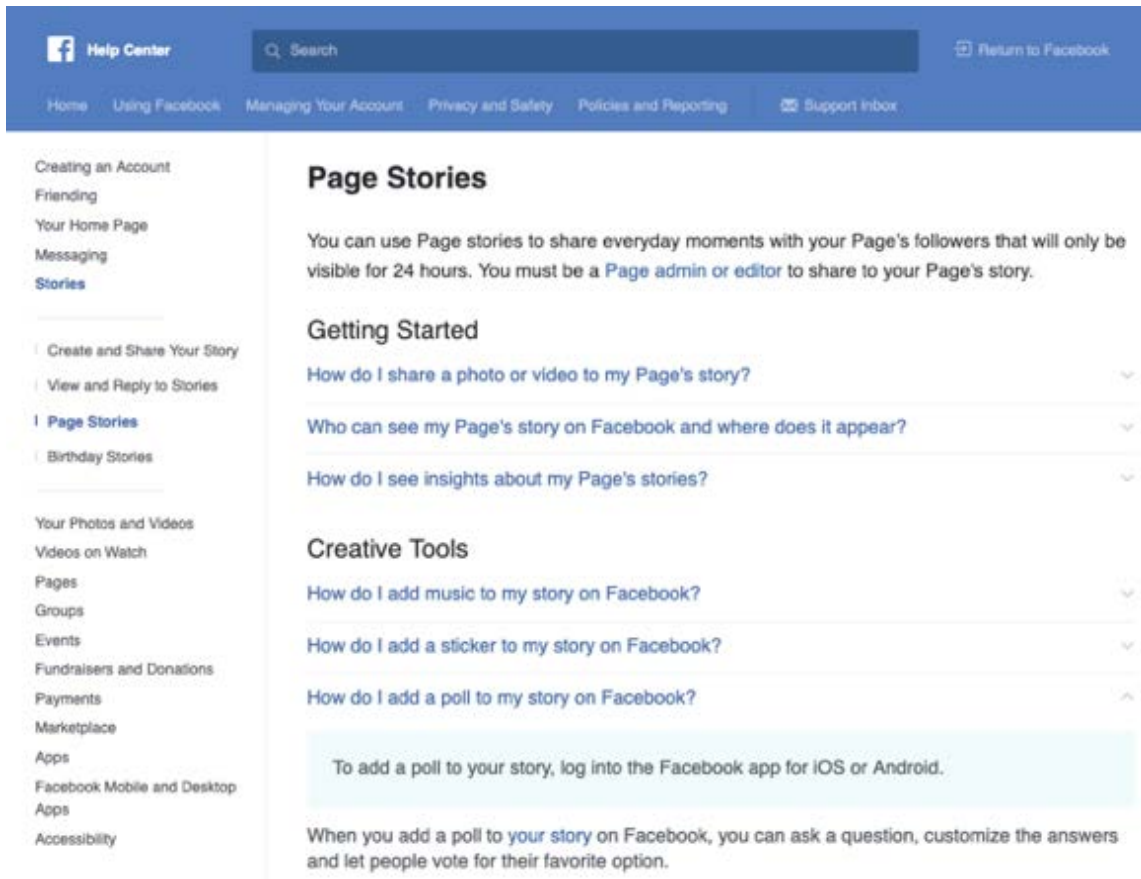
- 69.63.176.13
- 69.63.181.15
- 69.63.184.142
- 69.63.187.17
- 69.63.187.18
- 69.63.187.19
- 69.63.181.11
- 69.63.181.12

In some cases, you can access Facebook by using an IP address instead of its usual URL. This is handy if you want to visit the social networking service but you cannot resolve domain names behind a given network.

Source: <https://www.lifewire.com/what-is-the-ip-address-of-facebook-818152>





133. The Accused Instrumentality includes an authoring tool that allows the user to define a UI object to be displayed. For example, one of the web components “Stories” allows the user to post a story and add a poll, which consists of an input and an output of the “Stories” web service.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

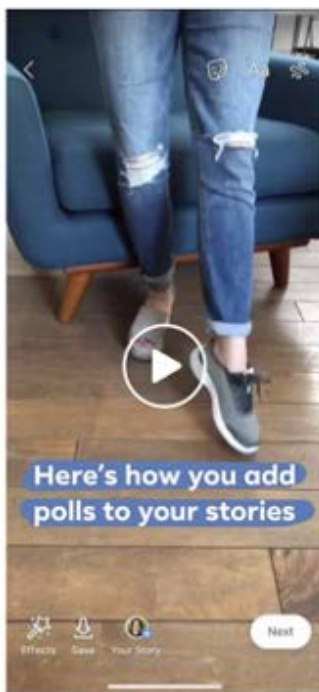
To add a poll to your story on iPhone or Android:

- 1 At the top of your News Feed, tap **+ Add to Story**.
- 2 Add your photo or video. You can tap a story type at the top (example: **Boomerang**) or select a photo or video from your camera roll. Tap  in the top right to take a new photo or video using the camera.
- 3 Tap  in the top right, then tap **POLL**.
- 4 Type your question, then tap **Yes** or **No** to customize the answers.
- 5 Tap **Done** in the top right.
- 6 Tap **Share to**, then select the audience for your story and tap **Share Now**.

### Poll Results

People can respond to your poll by tapping an option you've provided. When someone selects an answer, they can see the current results of your poll.

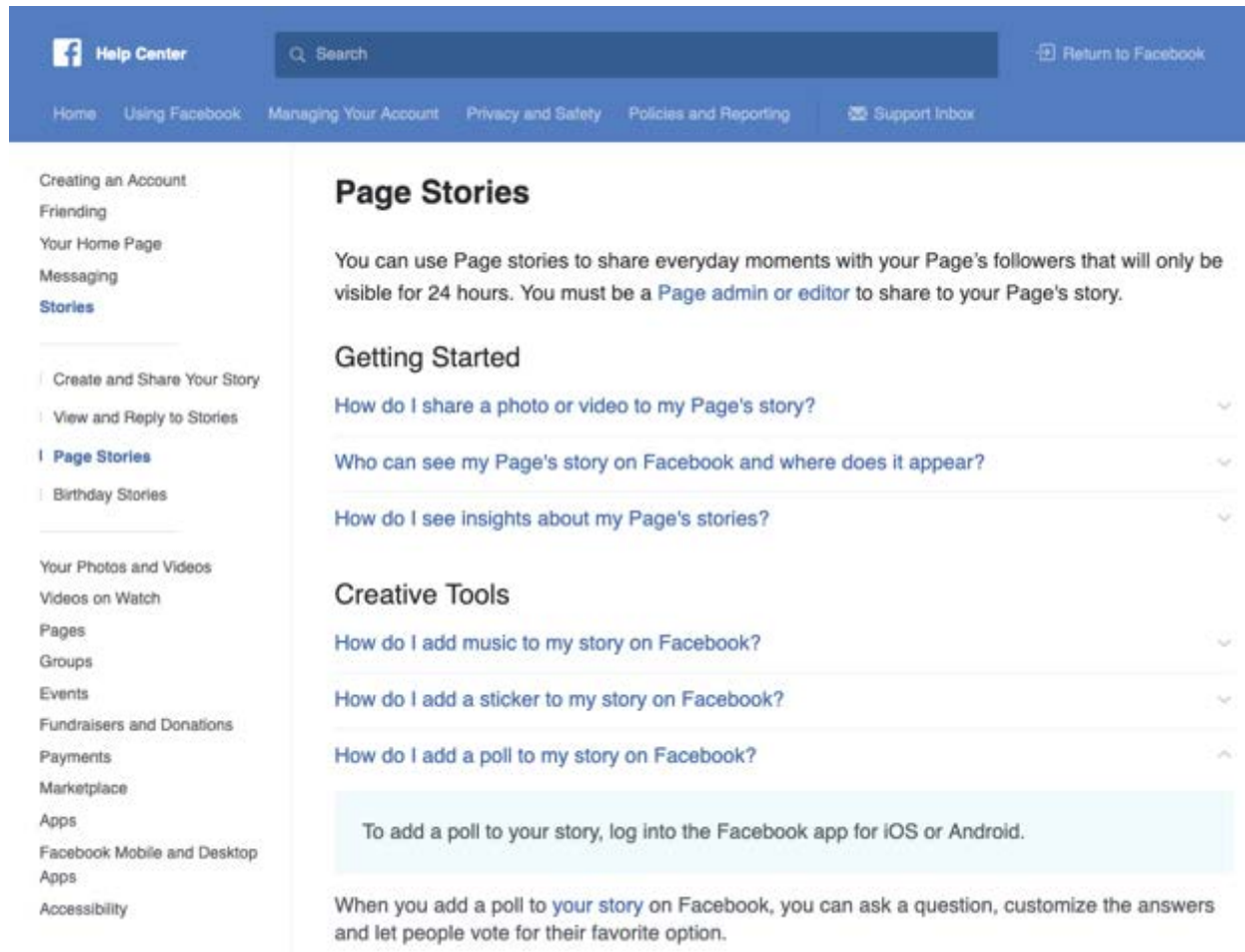
When you view your story and swipe up, you can see how many votes each option received and how each person voted.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)


134. When a user of the Accused Instrumentality uses the authoring tool to post a story along with a poll, such as the following example where the user is polling her friends to help her decide which shoes, the authoring tool accesses the computer memory to select the associated UI objects to allow the user to do so. Once selected, the Accused Instrumentality

associates the symbolic name — “Stories”— with the selected defined UI object. The “Stories” symbolic name is only available to corresponding UI objects.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

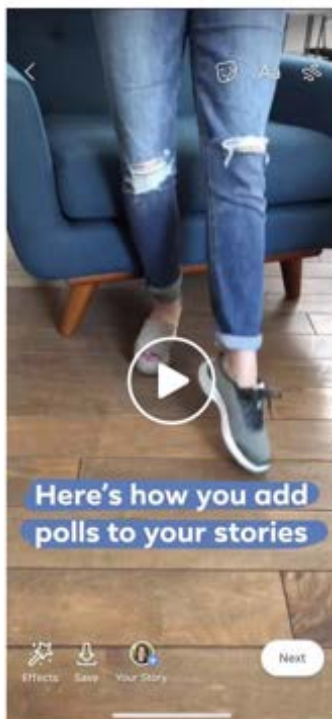
To add a poll to your story on iPhone or Android:

- 1 At the top of your News Feed, tap **+** **Add to Story**.
- 2 Add your photo or video. You can tap a story type at the top (example: **Boomerang**) or select a photo or video from your camera roll. Tap  in the top right to take a new photo or video using the camera.
- 3 Tap  in the top right, then tap **POLL**.
- 4 Type your question, then tap **Yes** or **No** to customize the answers.
- 5 Tap **Done** in the top right.
- 6 Tap **Share to**, then select the audience for your story and tap **Share Now**.

### Poll Results

People can respond to your poll by tapping an option you've provided. When someone selects an answer, they can see the current results of your poll.

When you view your story and swipe up, you can see how many votes each option received and how each person voted.



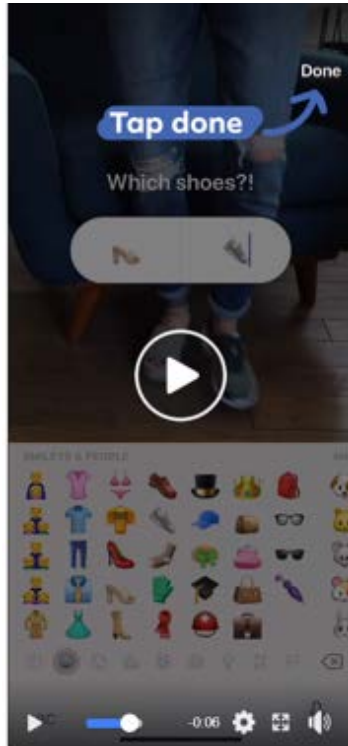
**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

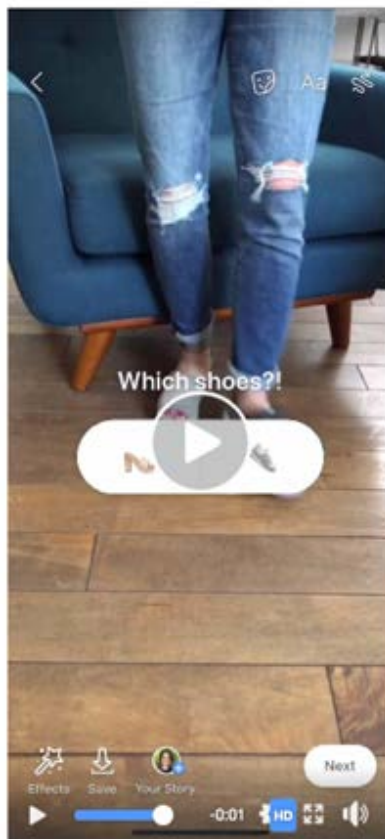
135. The authoring tool in the Accused Instrumentality is configured to produce an application consisting of a web page view from the Facebook database.

136. The application is provided, for example, in the form of JavaScript files and associated data for the web page view(s) that are stored in the Facebook database.

137. When a browser is used to access the Accused Instrumentality, it uses a player which interacts with the application and data stored on the Facebook server. The player accesses and renders the data to generate the web page viewed by the user. The player operates with the virtual machine (for example, SpiderMonkey (Firefox), JavaScriptCore (Safari)) and the information stored in the database in order to generate and display at least a portion of one or more web pages. The player includes code that is device-platform-dependent in order to allow the environment to work across a variety of devices such as personal computers (including laptops and desktops), tablets, browsers, and mobile phones.

138. The Accused Instrumentality stores information representative of the defined UI object and related settings in a database and retrieves the information for purposes of displaying the UI object on the live web site. In the example below, Facebook stores the “which shoes” selections made by the user and retrieves those selections for displaying to the user’s friends.





**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

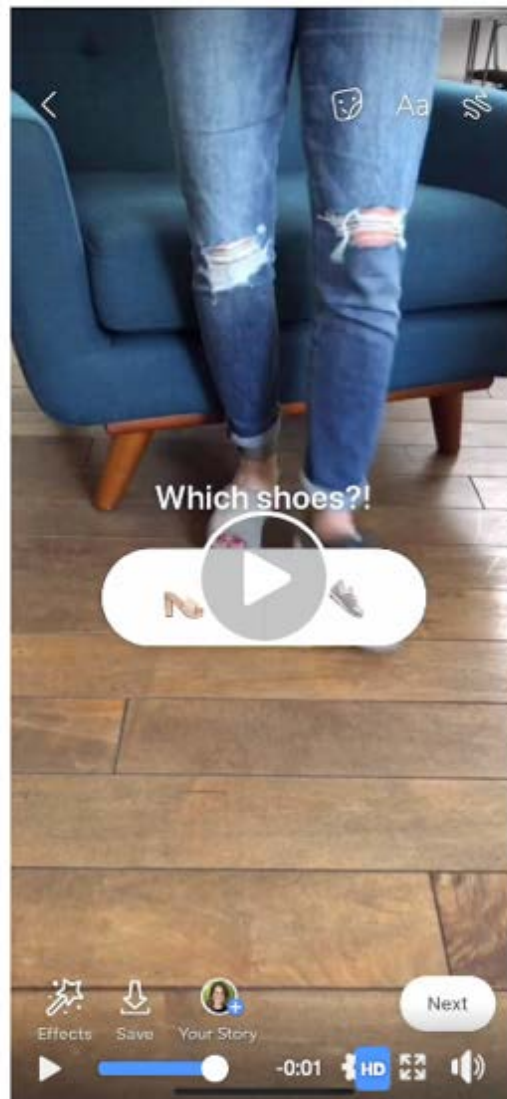
139. The Accused Instrumentality includes an application that allows users to use Facebook on mobile devices.

**Source:**

[https://www.facebook.com/help/277242742632461?helpref=search&sr=2&query=facebook app](https://www.facebook.com/help/277242742632461?helpref=search&sr=2&query=facebook%20app)

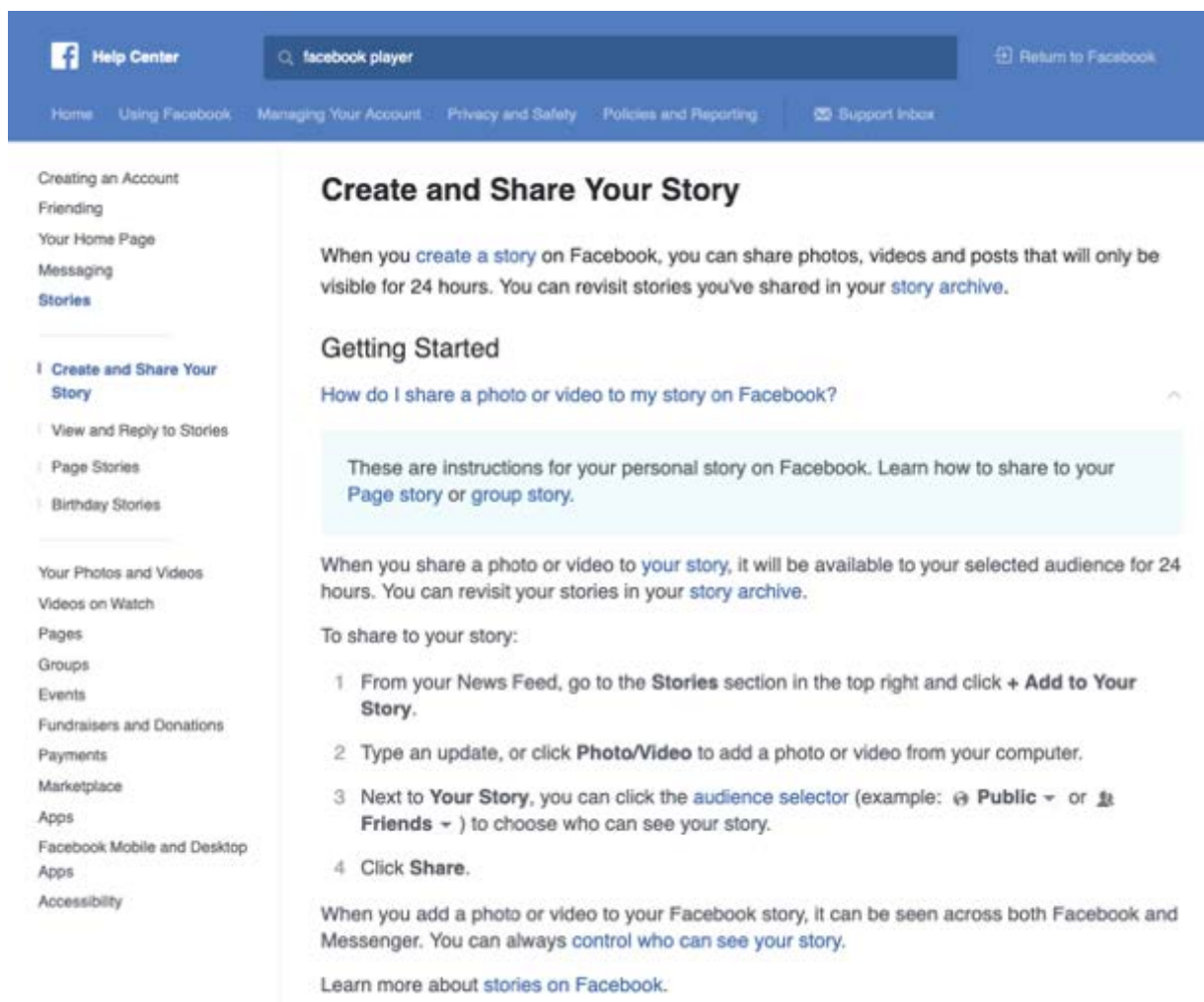
140. As described above and shown below, when a browser accesses the Accused Instrumentality or views a Facebook Story poll generated by the Accused Instrumentality, the application is provided to the device in the form of JavaScript files and other assets. The player code operates with the virtual machine to interpret this JavaScript and execute it locally.





**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

141. The Accused Instrumentality sends the application and player code to the client device to be executed on client devices.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

142. The Accused Instrumentality's web pages accept input from the user of a device related to the defined UI object, input which is then provided to a web service. The player code on the device operates with the virtual machine to execute the JavaScript instructions provided with Facebook in order to receive the output symbolic name and output value. The instructions also provide for the display of this output value in the UI object in order to display the appropriate data to the user. This output value is presented in the UI object for display on the device to the user.

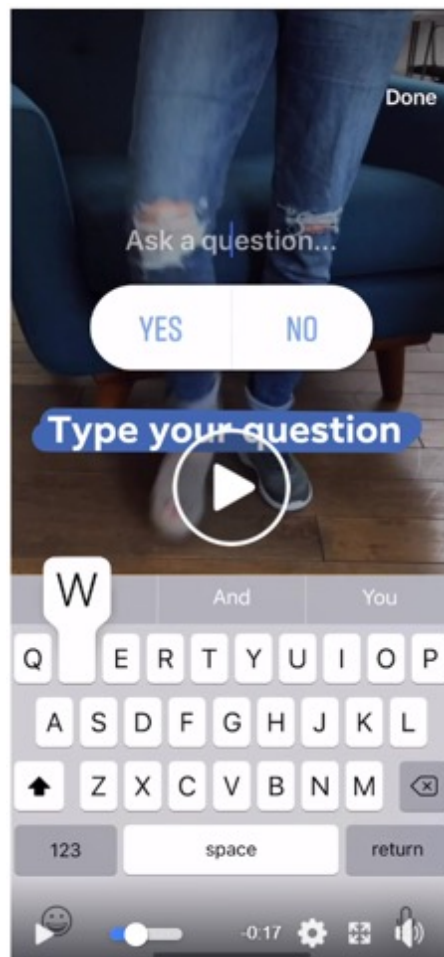
How do I add a poll to my story on Facebook?

To add a poll to your story, log into the Facebook app for iOS or Android.

When you add a poll to your story on Facebook, you can ask a question, customize the answers and let people vote for their favorite option.


To add a poll to your story:

- 1 Open Facebook on an iOS or Android device.
- 2 At the top of your News Feed, tap **+ Add to Story**.
- 3 Add your photo or video. You can tap a story type at the top (example: **Boomerang**) or select a photo or video from your camera roll. Tap **@Camera** to take a new photo or video.
- 4 Tap **🗳** in the top right, then tap **POLL**.
- 5 Type your question, then tap **Yes** or **No** to customize the answers.
- 6 Tap **Done** in the top right.
- 7 To change the audience for your story, you can tap **🔒 Privacy** in the bottom left.
- 8 Tap **Share to Story**.



**Source:** [https://www.facebook.com/help/126560554619115/?helpref=hc\\_fnav](https://www.facebook.com/help/126560554619115/?helpref=hc_fnav)

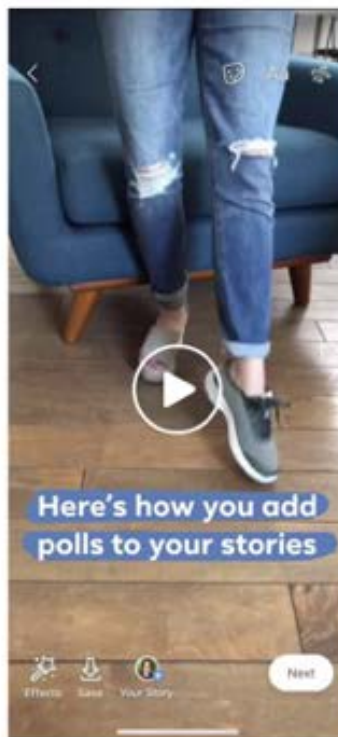
To add a poll to your story on iPhone or Android:

- 1 At the top of your News Feed, tap **+ Add to Story**.
- 2 Add your photo or video. You can tap a story type at the top (example: **Boomerang**) or select a photo or video from your camera roll. Tap  in the top right to take a new photo or video using the camera.
- 3 Tap  in the top right, then tap **POLL**.
- 4 Type your question, then tap **Yes** or **No** to customize the answers.
- 5 Tap **Done** in the top right.
- 6 Tap **Share to**, then select the audience for your story and tap **Share Now**.

### Poll Results

People can respond to your poll by tapping an option you've provided. When someone selects an answer, they can see the current results of your poll.

When you view your story and swipe up, you can see how many votes each option received and how each person voted.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

143. Facebook became aware of the '287 patent and its infringement, on August 31, 2020, when Express Mobile provided notice of Facebook's infringement of the '287 patent to Shayne O'Reilly, Associate General Counsel, IP Litigation of Facebook. Since at least the time

Facebook received notice, Facebook has directly infringed at least claim 1 of the '287 patent and induced others to infringe at least claim 1 of the '287 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe, including but not limited to Facebook's clients, customers, and end users, whose use of the Accused Instrumentality constituted direct infringement of at least one claim of the '287 patent. In particular, Facebook's actions that aid and abet others such as customers and end users to infringe included advertising and distributing the Accused Instrumentality and providing instruction materials, training, and services regarding the Accused Instrumentality. *See e.g.*, facebook.com, facebook.com/help, facebook.com/business/help, <https://www.facebook.com/notes/facebook-engineering/>, [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav), <https://www.facebook.com/help/277242742632461?helpref=search&sr=2&query=facebook%20app>, and related domains and subdomains. Facebook has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Facebook has had actual knowledge of the '287 patent and knowledge that its acts were inducing infringement of the '287 patent since at least the date Facebook received notice that such activities infringed the '287 patent.

144. Facebook is liable as a contributory infringer of the '287 patent under 35 U.S.C. § 271(c) by offering to sell, selling and importing into the United States website or web page authoring tools to be especially made or adapted for use in an infringement of the '287 patent. The Accused Instrumentality is a material component for use in practicing the '287 patent, is specifically made and is not a staple article of commerce suitable for substantial non-infringing use.

145. Upon information and belief, since the date of its receipt of notice, Facebook’s infringement of the ’287 patent has been willful and intentional under the standard announced in *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S.Ct. 1923, 195 L.Ed 2d 278 (2016). Since at least August 31, 2020, Facebook has willfully infringed the ’287 patent by refusing to take a license and continuing to make, use, test, sell, license, and/or offer for sale/license the Accused Instrumentality. Facebook has been aware that it infringes the ’287 patent since at least August 31, 2020, and instead of taking a license, Facebook has opted to make the business decision to “efficiently infringe” the ’287 patent. In doing so, Facebook willfully infringed the ’287 Patent.

146. Facebook’s infringement has damaged and injured and continues to damage and injure Express Mobile.

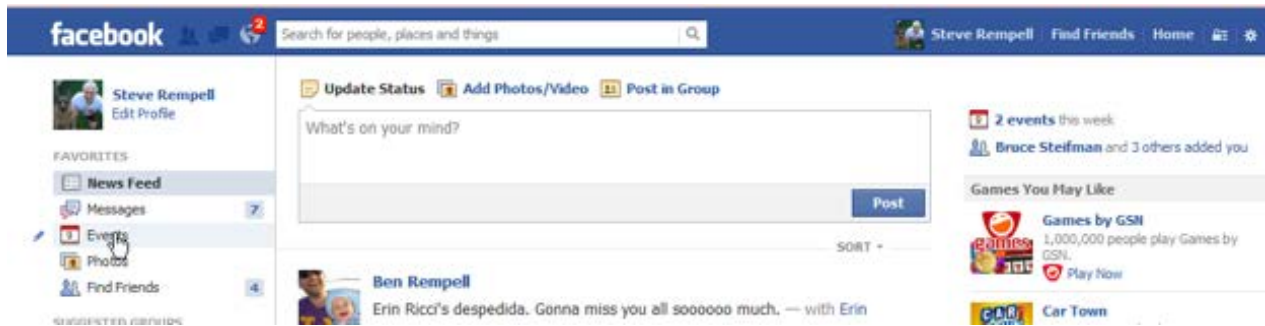
#### **COUNT V - INFRINGEMENT OF U.S. PATENT NO. 9,063,755**

147. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 145 above.

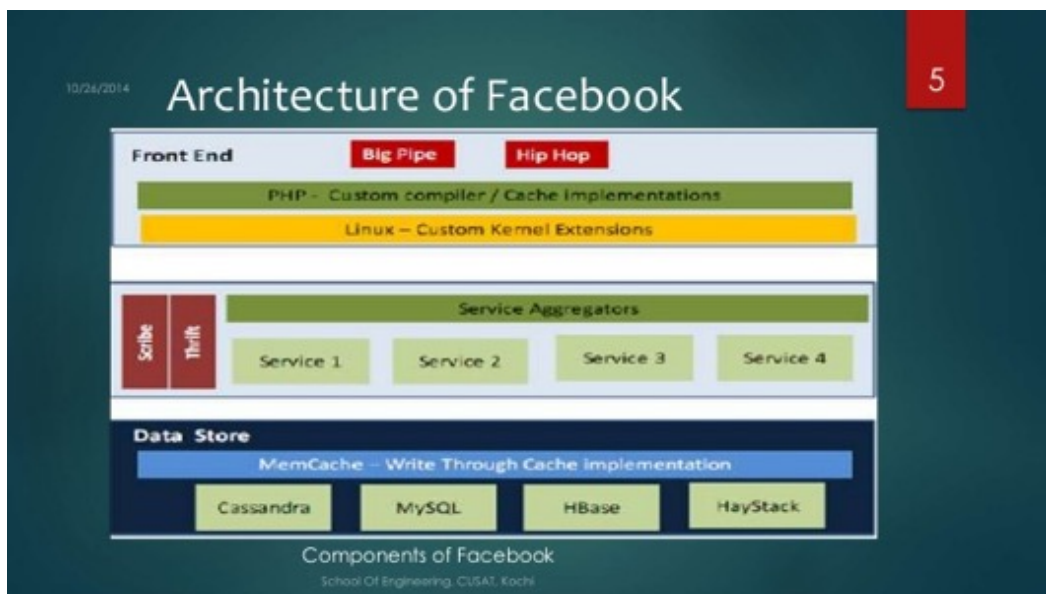
148. Facebook has manufactured, used and/or provided and is continuing to manufacture, use and/or provide its platform, including Facebook.com, its mobile applications and related software and servers (the “Accused Instrumentality”) that infringes, either literally or under the doctrine of equivalents, one or more claims of the ’755 patent in violation of 35 U.S.C. § 271(a).

149. Facebook has directly infringed at least claim 1 of the ’755 patent through its Accused Instrumentality that generates code to provide content on a display of a device.





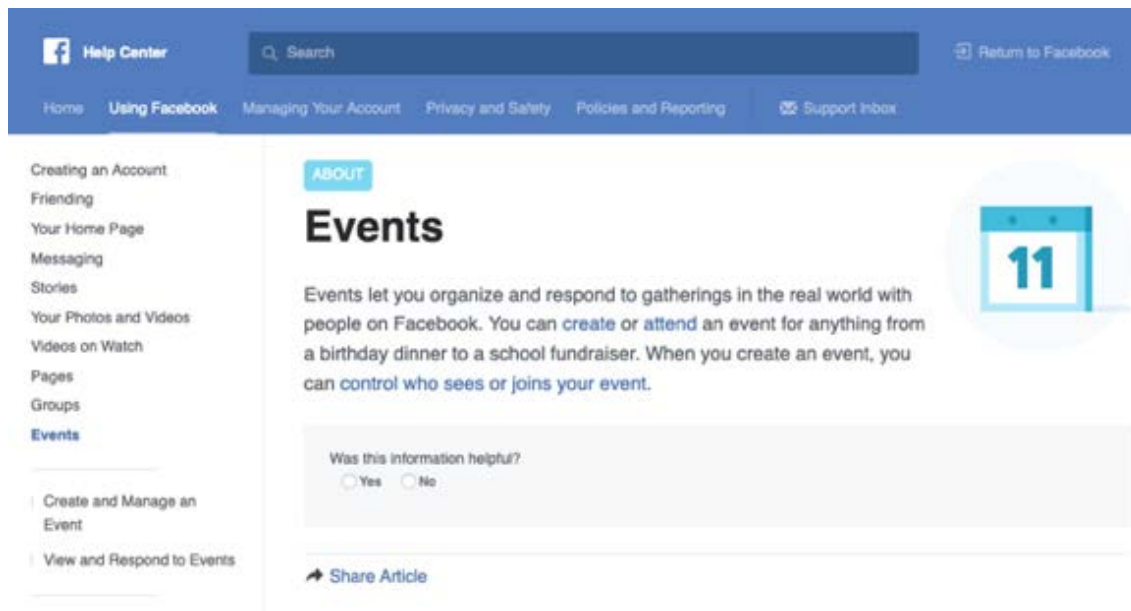
150. The Accused Instrumentality includes memory to store user selections and other information relating to a user's web site, web pages, and the web components or elements that are intended to be displayed.



**Source:** <https://www.slideshare.net/Rishikese/overview-of-facebook-scalable-architecture>.

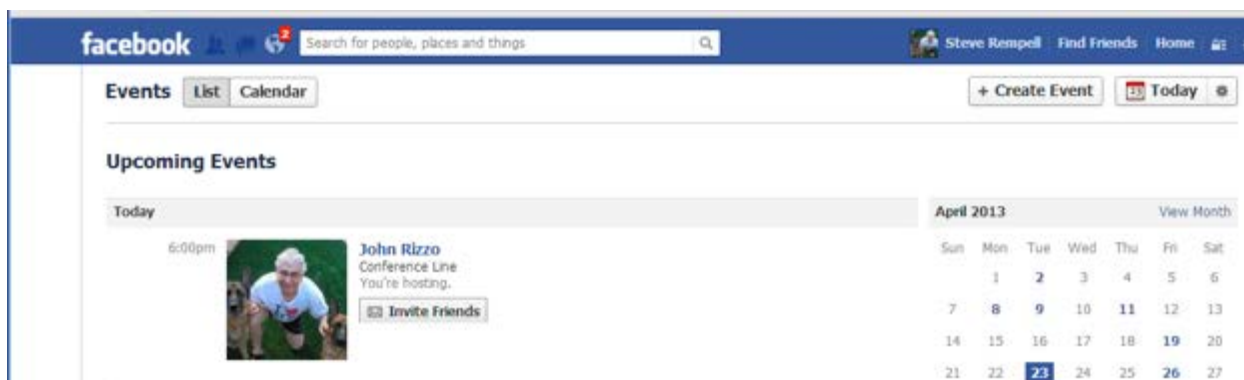
151. The Accused Instrumentality includes the ability to select web components to display on a webpage, such as “Friending,” “Stories,” and “Events” which are symbolic names.





**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

152. The “Events” web component corresponds to a number of user interface (UI) objects, which the user may select between. One of the choices listed in the selection panel is “Create Event” which has its own UI objects that support the data format type of “Events,” which takes the user inputs and generates new event outputs.



**Create New Event**

Name: Bob and Mike

Details: patent claims discussion

Where: 1-719-387-0199, participant code 636929

From: 4/26/2013 11:00 am PDT

To: 4/26/2013 12:00 pm

Hosts: Steve Rempell

Privacy: Invite Only

☒ Guests can invite friends

Create Cancel

153. The Accused Instrumentality's web components include an address of the web service.

```
https://www.facebook.com/ajax/bootloader-
endpoint/?modules=ReactComposerMagicTagSurvey&__user=666824870&__a=1&__dyn=7AgNe-
4amaWxd2u6aJGi9FxqeCwKyaF3oyfiheC263GdwIhE98nyUdUaofVUKbnyorxuF8vDKaxeUW2y4GDxq26czorx6VFEgU9
A69V8-cxu5o6u4E9ohwoU8-
6E42Euxm1GzFVo5y68bpUhKEtxy5UrGdx1GE4am2KUKaxi68izU5XxiGzXG48yq2W3eER7xa4oaLK6Uylxfy8qAx2cGcB
Km4U-
4K2iaypolVE9F4uEnG6Upz94imcLCDKi8wGxm4UGqfw_Dz9Wzogy8y6UuxCeCzEmgK7o84bxa78K8wioow0wBwIwKG2q4
U5m268BwBzU&__req=3x&__be=1&__pc=PHASED%3Aufi_home_page_pkg&dpr=2&__rev=1001045242&__s=%3A2cm
pkp%3A9zjpnI&__hsi=6724405608756511312-0&fb_dtsg_ag=AQzw-
IYl83HT_shlYYQF4y25Dn5VmKce5lMyFQFrLCSGQ%3AAQwC6v0x7HSR0Yg8rV3a9wVxso6wuL5ZAFnfh9LPWl_bxw&ja
zoest=28022&__spin_r=1001045242&__spin_b=trunk&__spin_t=1565618297
```



**Note:** Facebook.com uses some but not all of the addresses in these ranges.

#### Reach Facebook by IP Address

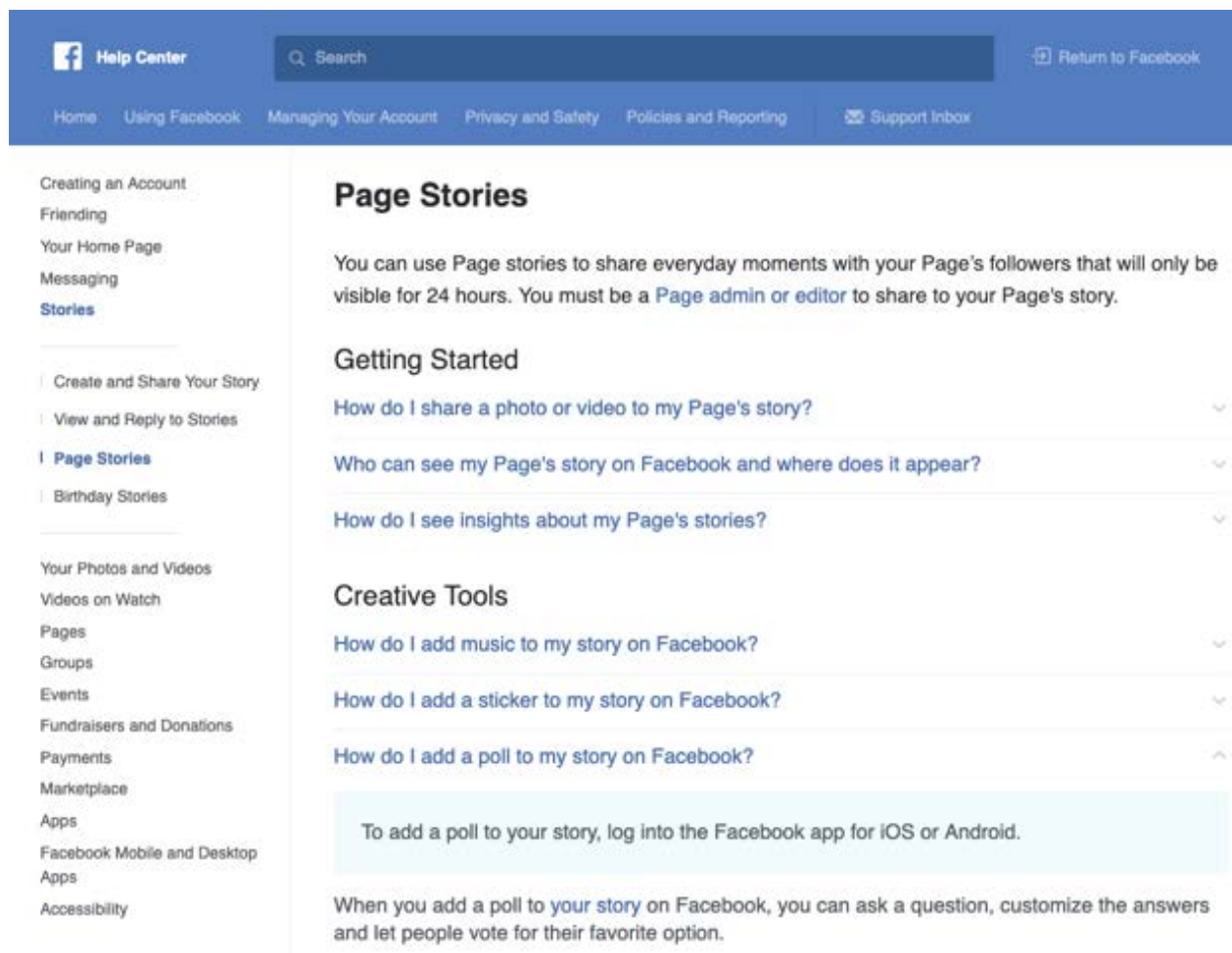
Below are some of the most common active IP addresses for Facebook.com:

- 69.63.176.13
- 69.63.181.15
- 69.63.184.142
- 69.63.187.17
- 69.63.187.18
- 69.63.187.19
- 69.63.181.11
- 69.63.181.12

In some cases, you can access Facebook by using an IP address instead of its usual URL. This is handy if you want to visit the social networking service but you cannot resolve domain names behind a given network.


**Source:** <https://www.lifewire.com/what-is-the-ip-address-of-facebook-818152>

154. The Accused Instrumentality includes an authoring tool that allows the user to define a UI object to be displayed. For example, one of the web components “Stories” allows the user to post a story and add a poll, which consists of an input and an output of the “Stories” web service.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

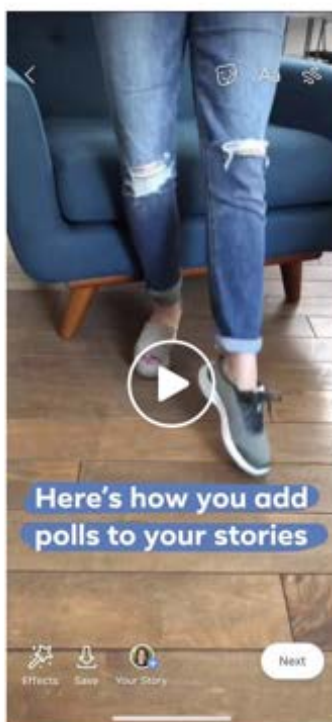
To add a poll to your story on iPhone or Android:

- 1 At the top of your News Feed, tap **+** **Add to Story**.
- 2 Add your photo or video. You can tap a story type at the top (example: **Boomerang**) or select a photo or video from your camera roll. Tap  in the top right to take a new photo or video using the camera.
- 3 Tap  in the top right, then tap **POLL**.
- 4 Type your question, then tap **Yes** or **No** to customize the answers.
- 5 Tap **Done** in the top right.
- 6 Tap **Share to**, then select the audience for your story and tap **Share Now**.

### Poll Results

People can respond to your poll by tapping an option you've provided. When someone selects an answer, they can see the current results of your poll.

When you view your story and swipe up, you can see how many votes each option received and how each person voted.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

155. The Accused Instrumentality's authoring tool accesses the computer memory to select the symbolic name corresponding to the web component of the defined UI object and associates the selected symbolic name with the defined UI object. When a user of Facebook uses the authoring tool to post a story along with a poll, such as in the following example where

the user is polling her friends to help her decide which shoes, the authoring tool accesses the computer memory to select the associated UI objects to allow the user to do so. Once selected, Facebook associates the symbolic name—“Stories”—with the selected defined UI object. The “Stories” symbolic name is only available to corresponding UI objects.

156. The authoring tool in the Accused Instrumentality is configured to build an application consisting of a web page view from the Facebook database.

157. The application is provided, for example, in the form of JavaScript files and associated data for the web page view(s) that are stored in the Facebook database.



158. When a browser is used to access the Accused Instrumentality, it uses a player which interacts with the application and data stored on the Facebook server. The player accesses and renders the data to generate the web page viewed by the user. The player operates with the virtual machine (for example, SpiderMonkey (Firefox), JavaScriptCore (Safari)) and the information stored in the database in order to generate and display at least a portion of one or more web pages. The player includes code that is device-platform-dependent in order to allow the environment to work across a variety of devices such as personal computers (including laptops and desktops), tablets, browsers, and mobile phones.

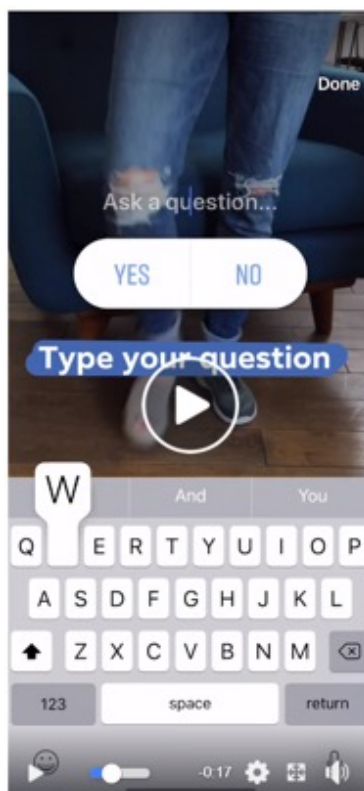
How do I add a poll to my story on Facebook? ^

To add a poll to your story, log into the Facebook app for iOS or Android.

When you add a poll to [your story](#) on Facebook, you can ask a question, customize the answers and let people vote for their favorite option.

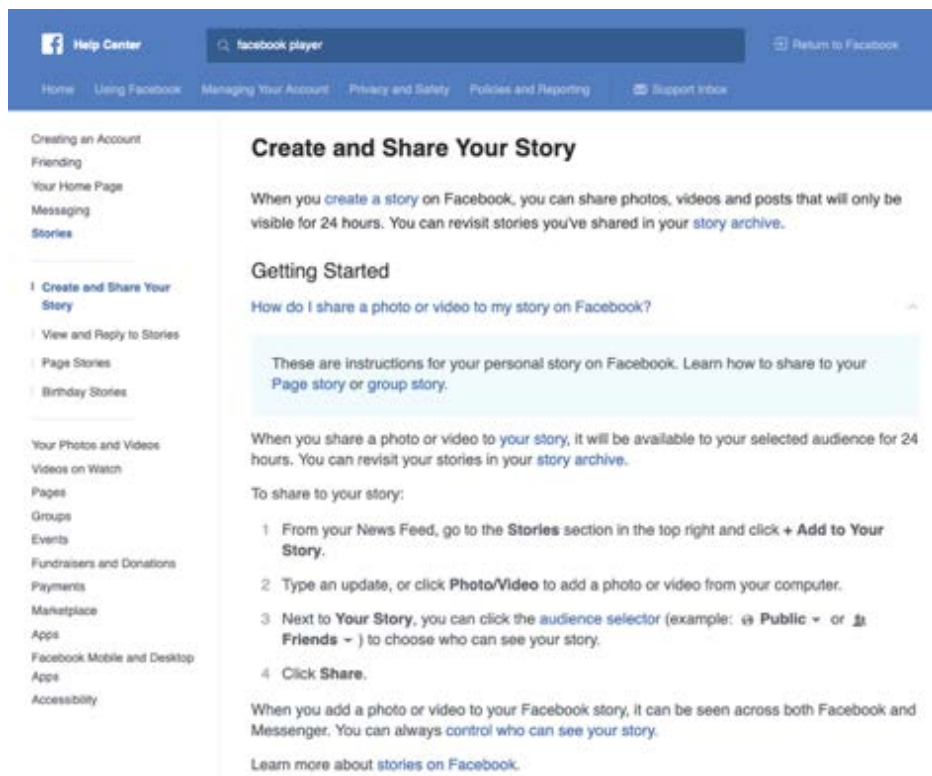
To add a poll to your story:

- 1 Open Facebook on an iOS or Android device.
- 2 At the top of your News Feed, tap **+ Add to Story**.
- 3 Add your photo or video. You can tap a story type at the top (example: **Boomerang**) or select a photo or video from your camera roll. Tap **@Camera** to take a new photo or video.
- 4 Tap  in the top right, then tap **POLL**.
- 5 Type your question, then tap **Yes** or **No** to customize the answers.
- 6 Tap **Done** in the top right.
- 7 To change the audience for your story, you can tap  **Privacy** in the bottom left.
- 8 Tap **Share to Story**.





**Source:** [https://www.facebook.com/help/126560554619115/?helpref=hc\\_fnav](https://www.facebook.com/help/126560554619115/?helpref=hc_fnav)



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

159. As described above and shown below, when a browser accesses the Accused Instrumentality or views a Facebook Story poll, the application is provided to the device in the form of JavaScript files and other assets. The player code operates with the virtual machine to interpret this JavaScript and execute it locally. When a user of Facebook uses the authoring tool to post a story along with a poll, such as the following example where the user is polling her friends to help her decide which shoes, the authoring tool accesses the computer memory to select the associated UI objects to allow the user to do so. Once selected, Facebook associates the symbolic name—“Stories”—with the selected defined UI object. The “Stories” symbolic name is only available to corresponding UI objects.



The screenshot shows the Facebook Help Center interface. At the top is a blue navigation bar with the Facebook logo, 'Help Center', a search bar, and a 'Return to Facebook' link. Below this is a secondary navigation bar with links: Home, Using Facebook, Managing Your Account, Privacy and Safety, Policies and Reporting, and Support Inbox. On the left is a sidebar menu with categories: Creating an Account, Friending, Your Home Page, Messaging, Stories (highlighted), Your Photos and Videos, Videos on Watch, Pages, Groups, Events, Fundraisers and Donations, Payments, Marketplace, Apps, Facebook Mobile and Desktop Apps, and Accessibility. The main content area is titled 'Page Stories' and includes an introductory paragraph, a 'Getting Started' section with three expandable links, a 'Creative Tools' section with three expandable links, a light blue callout box about adding polls, and a concluding paragraph about poll functionality.

**Page Stories**

You can use Page stories to share everyday moments with your Page's followers that will only be visible for 24 hours. You must be a [Page admin or editor](#) to share to your Page's story.

**Getting Started**

- [How do I share a photo or video to my Page's story?](#)
- [Who can see my Page's story on Facebook and where does it appear?](#)
- [How do I see insights about my Page's stories?](#)

**Creative Tools**

- [How do I add music to my story on Facebook?](#)
- [How do I add a sticker to my story on Facebook?](#)
- [How do I add a poll to my story on Facebook?](#)

To add a poll to your story, log into the Facebook app for iOS or Android.

When you add a poll to [your story](#) on Facebook, you can ask a question, customize the answers and let people vote for their favorite option.

**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

To add a poll to your story on iPhone or Android:

- 1 At the top of your News Feed, tap **+** **Add to Story**.
- 2 Add your photo or video. You can tap a story type at the top (example: **Boomerang**) or select a photo or video from your camera roll. Tap **@** in the top right to take a new photo or video using the camera.
- 3 Tap **@** in the top right, then tap **POLL**.
- 4 Type your question, then tap **Yes** or **No** to customize the answers.
- 5 Tap **Done** in the top right.
- 6 Tap **Share to**, then select the audience for your story and tap **Share Now**.

### Poll Results

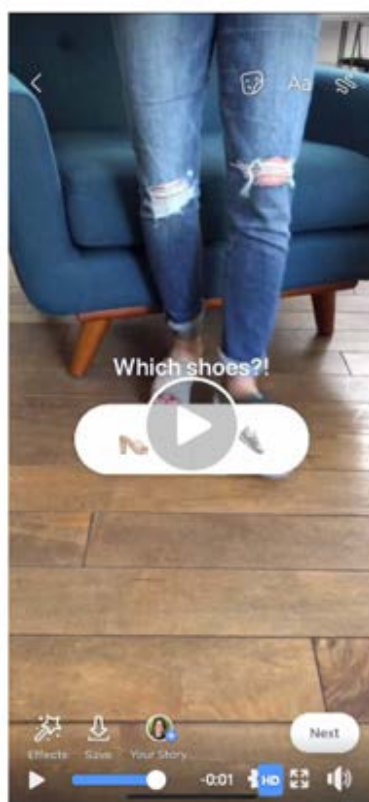
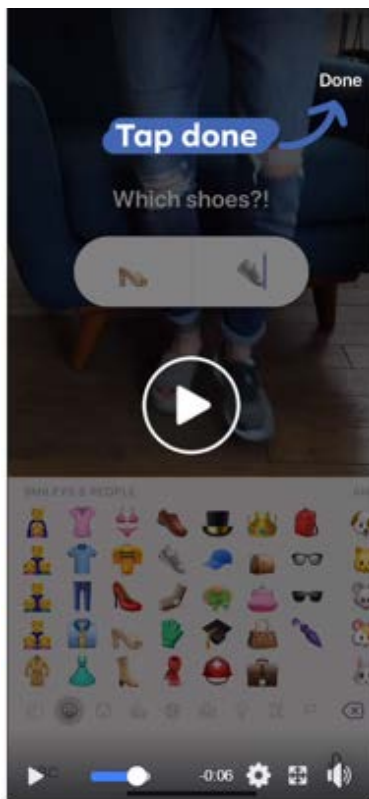
People can respond to your poll by tapping an option you've provided. When someone selects an answer, they can see the current results of your poll.

When you view your story and swipe up, you can see how many votes each option received and how each person voted.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)



160. The Accused Instrumentality stores information representative of the defined UI object and related settings in a database and retrieves the information for purposes of displaying the UI object on the live web site. In the example below, Facebook stores the “which shoes” selections made by the user and retrieves those selections for displaying to the user’s friends.



Source: [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

16l. The Accused Instrumentality's web pages accept input from the user of a device related to the defined UI object, input which is then provided to a web service. The web pages receive the output from the web service and provide instructions for the display of the device to present the output value in the defined UI object.

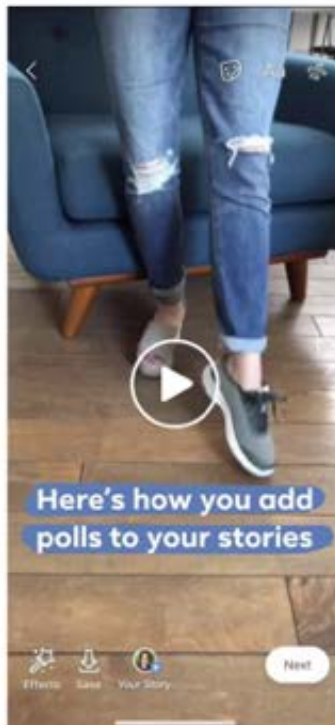
To add a poll to your story on iPhone or Android:

- 1 At the top of your News Feed, tap **+ Add to Story**.
- 2 Add your photo or video. You can tap a story type at the top (example: **Boomerang**) or select a photo or video from your camera roll. Tap  in the top right to take a new photo or video using the camera.
- 3 Tap  in the top right, then tap **POLL**.
- 4 Type your question, then tap **Yes** or **No** to customize the answers.
- 5 Tap **Done** in the top right.
- 6 Tap **Share to**, then select the audience for your story and tap **Share Now**.

### Poll Results

People can respond to your poll by tapping an option you've provided. When someone selects an answer, they can see the current results of your poll.

When you view your story and swipe up, you can see how many votes each option received and how each person voted.



**Source:** [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav)

162. Facebook became aware of the '755 patent and its infringement, on August 31, 2020, when Express Mobile provided notice of Facebook's infringement of the '755 patent to Shayne O'Reilly, Associate General Counsel, IP Litigation of Facebook. Since at least the time Facebook received notice, Facebook has directly infringed at least claim 1 of the '755 patent and induced others to infringe at least claim 1 of the '755 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe, including but not limited to Facebook's clients, customers, and end users, whose use of the Accused Instrumentality constituted direct infringement of at least one claim of the '755 patent. In particular, Facebook's actions that aid and abet others such as customers and end users to infringe included advertising and distributing the Accused Instrumentality and providing instruction materials, training, and services regarding the Accused Instrumentality. See e.g., facebook.com, facebook.com/help, facebook.com/business/help, <https://www.facebook.com/notes/facebook-engineering/>, [https://www.facebook.com/help/1076296042409786/?helpref=hc\\_fnav](https://www.facebook.com/help/1076296042409786/?helpref=hc_fnav), <https://www.facebook.com/help/277242742632461?helpref=search&sr=2&query=facebook%20app>, and related domains and subdomains. Facebook has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Facebook has had actual knowledge of the '755 patent and knowledge that its acts were inducing infringement of the '755 patent since at least the date Facebook received notice that such activities infringed the '755 patent.

163. Facebook is liable as a contributory infringer of the '755 patent under 35 U.S.C. § 271(c) by offering to sell, selling and importing into the United States website or web page authoring tools to be especially made or adapted for use in an infringement of the '755 patent.

The Accused Instrumentality is a material component for use in practicing the '755 patent, is specifically made and is not a staple article of commerce suitable for substantial non-infringing use.

164. Upon information and belief, since the date of its receipt of notice, Facebook's infringement of the '755 patent has been willful and intentional under the standard announced in *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S.Ct. 1923, 195 L.Ed 2d 278 (2016). Since at least August 31, 2020, Facebook has willfully infringed the '755 patent by refusing to take a license and continuing to make, use, test, sell, license, and/or offer for sale/license the Accused Instrumentality. Facebook has been aware that it infringes the '755 patent since at least August 31, 2020, and instead of taking a license, Facebook has opted to make the business decision to "efficiently infringe" the '755 patent. In doing so, Facebook willfully infringed the '755 Patent.

165. Facebook's infringement has damaged and continues to damage and injure Express Mobile.

### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff requests that the Court enter judgment for Plaintiff and against Defendant as follows:

166. That U.S. Patent No. 6,546,397 be judged valid, enforceable, and infringed by Defendant;

167. That U.S. Patent No. 7,594,168 be judged valid, enforceable, and infringed by Defendant;

168. That U.S. Patent No. 9,928,044 be judged valid, enforceable, and infringed by Defendant;

169. That U.S. Patent No. 9,471,287 be judged valid, enforceable, and infringed by Defendant;

170. That U.S. Patent No. 9,063,755 be judged valid, enforceable, and infringed by Defendant;

171. That Plaintiff be awarded judgment against Defendant for damages together with interests and costs fixed by the Court including an accounting of all infringements and/or damages not presented at trial;

172. That the Court declare this an exceptional case and award Plaintiff its attorneys' fees, as provided by 35 U.S.C. § 285 and that Plaintiff be awarded enhanced damages up to treble damages for willful infringement as provided by 35 U.S.C. § 284; and

173. That Plaintiff be awarded such other and further relief as this Court may deem just and proper.

**JURY DEMAND**

Plaintiff respectfully requests a jury trial on all issues so triable.



Dated: September 1, 2020

Respectfully submitted,

/s/ Robert F. Kramer w/permission Robert Christopher Bunt

FEINBERG DAY KRAMER ALBERTI

LIM TONKOVICH & BELLOLI LLP

Robert F. Kramer (*pro hac vice* to be filed)

rkramer@feinday.com

M. Elizabeth Day (*pro hac vice* to be filed)

eday@feinday.com

David Alberti (*pro hac vice* to be filed)

dalberti@feinday.com

Sal Lim (*pro hac vice* to be filed)

slim@feinday.com

Russell Tonkovich (*pro hac vice* to be filed)

rtonkovich@feinday.com

Marc Belloli (*pro hac vice* to be filed)

mbelloli@feinday.com

577 Airport Blvd., Suite 250

Burlingame, California 94010

Tel: 650-825-4300

Fax: 650-460-8443

Robert Christopher Bunt (Texas 00787165)

Charles L. Ainsworth (Texas 00783521)

PARKER, BUNT & AINSWORTH, P.C.

100 East Ferguson, Suite 418

Tyler, TX 75702

Tel: (903) 531-3535

rcbunt@pbatyler.com

charley@pbatyler.com

*Attorneys for Plaintiff*

Express Mobile, Inc..